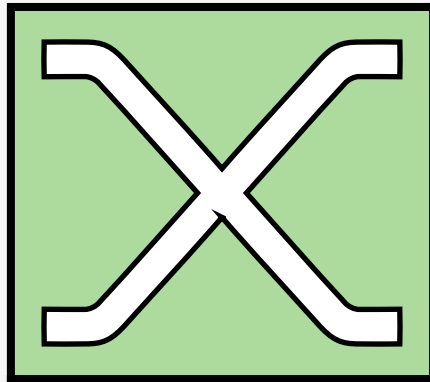


## Cisco StrataCom BPX8600 Series



Supports Management Module SM-CIS1003

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## DEVICE CONFIGURATION VIEW

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# About This Document

---

This section defines the purpose and describes the organization of this document as well as providing a brief description of each section that follows.

---

## Purpose

Use this guide as a reference for the SM-CIS1003 SPECTRUM management module which supports the Cisco StrataCom BPX8600 Series wide-area switch. This guide provides information on monitoring the performance and configuration of these devices.

The information in this guide is intended to be used in conjunction with the SPECTRUM Device Management documentation that is provided online.

## Required Reading

Before using this guide, you should understand the functions and navigation techniques of SPECTRUM as described in the documents listed below.

- ***Getting Started with SPECTRUM for Operators***
- ***Getting Started with SPECTRUM for Administrators***
- ***How to Manage Your Network with SPECTRUM***
- ***SPECTRUM Views***
- ***SPECTRUM Menus***
- ***SPECTRUM Icons***

# Organization

This guide provides device information within the following sections:

- **Overview:** This section provides information for users unfamiliar with the Cisco StrataCom hardware.
- **The SPECTRUM Model:** This section describes the icon used to represent the Cisco StrataCom and explains how to model and configure the wide-area switch within SPECTRUM.
- **StrataCom Views:** This section lists the views available in SPECTRUM from the Device Icon Subviews menu for the StrataCom device.
- **Performance Views:** This section provides a brief description of the Performance views that are available for the StrataCom devices.
- **Device View:** This section provides a detailed description of the icons and their subviews used to represent the StrataCom devices.
- **Device Topology View:** This section provides a description of the icons used to represent the Interfaces and the MIMs managed by the Cisco StrataCom devices.

- **Application Views:** This section describes the applications displayed in this view that are supported by the StrataCom devices.
- **Device Configuration View:** This section describes the Device Configuration View for the StrataCom devices.
- **Model Information View:** This section provides a brief description of the Model Information View that is available for the StrataCom devices.

# Overview

---

This section provides an overview of the services that the Cisco StrataCom supports and the event messages that are specific to the StrataCom device.

---

The Cisco StrataCom BPX8600 Series is a powerful broadband wide-area switch. The switch offers up to 20 Gbps (in a 15-slot chassis) of high throughput switching for multiple traffic types - voice, data, and image. The Cisco StrataCom offers backbone ATM switching and integrates user services over broadband and narrowband ATM trunks. The StrataCom switch enables organizations to migrate to the next generation of switched internetworks while it complements existing investments in routers and Frame Relay switches.

The Cisco StrataCom supports the following services:

- Internet/Intranet - Advanced traffic management capabilities provide the highest throughput and trunk use without risk of cell loss.
- ATM, Frame Relay, SMDS (Switch Multimegabit Data Service), LAN, SNA, X.25, Internet, and broadband video at speeds up to 622 Mbps.

- Switched networking for delivering high speed LAN-to-Lan solutions for Ethernet, Fast Ethernet, Token Ring, and FDDI traffic across metropolitan or global ATM backbone.
- Analog and digital wireless data and enhanced specialized mobile radio (ESMR) services from a single Cisco StrataCom switch.

# Events

---

This section identifies the Events and Probable Causes that are available for the Cisco StrataCom.

---

The Cisco StrataCom has several event and alarm messages that are specific to its devices. If these messages are not sufficient and you wish to create your own messages, or view the existing messages for the StrataCom, you can do so using the ***ECEditor***.

The event messages for StrataCom, which range from **Event02b60000** to **Event02b60023**, can be found in the following directory:

**~/SG-Support/CsEvFormat**

The alarm messages for StrataCom, which range from **Prob02b60000** to **Prob02b60023**, can be found in the following directory:

**~/SG-Support/CsPCause**



# The SPECTRUM Model

---

This section shows how the Cisco StrataCom is represented in SPECTRUM.

---

SPECTRUM management modules are software packages that provide templates for creating software models of physical devices and their associated applications. These templates, called model types, specify attributes corresponding to objects defined in the Management Information Bases (MIBs) that govern the operation of the device or application being modeled. Once created, the models reside in the SpectroSERVER database, where they are continually updated with new information obtained by regular polling of the device.

A single device model type, StrataCom ([Figure 1](#) shows the device icon used to represent StrataCom in SPECTRUM), is used for modeling any of the supported Cisco StrataCom devices for the BPX 8600 Series wide-area switches.

Various application model types are also used to model the applications supported by Cisco StrataCom devices. These are listed in the section Application Views.

**Figure 1: StrataCom Model Type Icon**



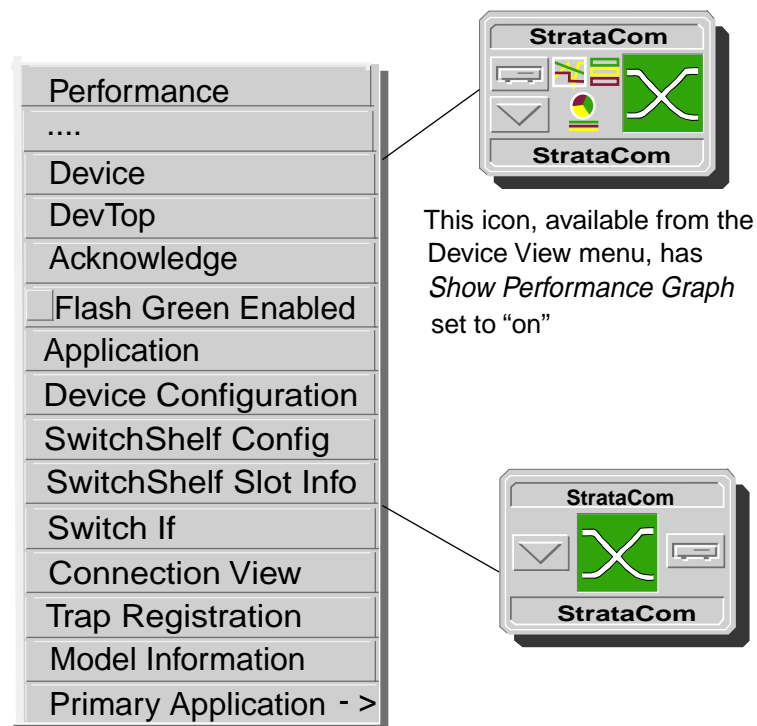
# StrataCom Views

This section lists the views that are available in SPECTRUM from the Icon Subviews menu for the Device icon.

The following views are accessible from the Device icon for the Cisco StrataCom. [Figure 2](#) shows the types of icons that represent these devices and their Icon Subviews menus.

- Performance Views
- Device View
- Device Topology View
- Application Views
- Device Configuration View
- Model Information View

**Figure 2: StrataCom Device Icons - Menu Selections**



# Performance Views

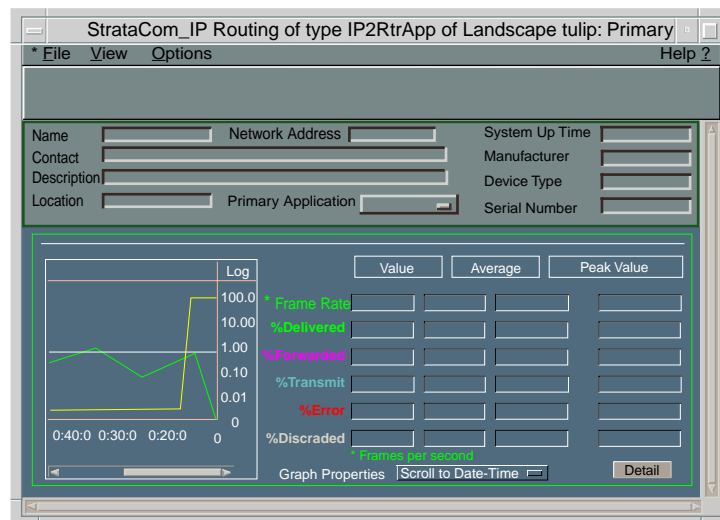
This section describes the Performance views that give statistical information for the Device and Port Performance Views that are available for the Cisco StrataCom.

Performance views (Figure 3) provide you with multi-attribute line graphs that represent statistical information about the operation of the device. A Detail button opens up pie charts that show packet information for the device and its ports. The following performance views are described in this section:

- Performance View
- Port Performance View

A general description of performance views is provided in the ***SPECTRUM Views*** documentation.

**Figure 3: StrataCom Performance View**



## Performance View

This view provides statistical information about the packets being passed through the device. To access this view, select **Performance** from the **Icon Subviews** menu for the Device icon. For the definitions for these statistics and a description of performance views, refer to the **SPECTRUM Views** documentation. The following packet statistics for the entire device are displayed in this view:

- \* Frame Rate
- % Delivered
- % Forwarded
- % Transmit
- % Error
- % Discarded

## Port Performance View

This view provides statistical information about the packets being passed through a particular interface. To access this view, select **Performance** from the **Icon Subviews** menu for an Interface icon within the Device view or DevTop view. The following packet statistics for the selected interface are displayed in this view:

- Load
- Packet Rate
- % Error
- % Discarded

[Table 1](#) lists the Port Performance view buttons and the subviews they open.

**Table 1: Port Performance View Buttons**

Button	Open the...
Detail	Interface Detail view which displays packet, error, and discarded breakdown statistics.
Transmit	Detailed Port Performance view for packets transmitted.
Receive	Detailed Port Performance view for packets received.
Configuration	Interface Configuration view.
Threshold	Interface Threshold view, which allows you to set the thresholds for load, packet rate, error rate, and % discarded.
Alarms	Enterprise Alarm Manager.
Events	Event Log.

# Device View

This section describes the Device views accessible from the Icon Subviews menu for the Cisco StrataCom.

This view ([Figure 4](#)) provides dynamic configuration and performance information for each interface on this device. If the configuration changes, SPECTRUM modifies the Device view after the next polling cycle to reflect the new configuration.

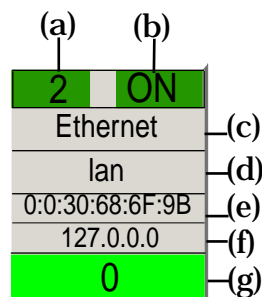
**Figure 4: StrataCom Device View**

Interface	Status	Type	Name	IP Address
1	ON	Ethernet	lan	0-C0:4-0:0 137.181.37.16
2	ON	Other	nwip	0-0:0-0:0 10.10.10
3	ON	SFTWARLPBK		0-0:0-0:0 127.0.0

## Interface Icon

Interface icons represent each port on the Cisco StrataCom. The Interface icon consists of six labels, providing configuration and performance information. [Figure 5](#) shows an example of an interface icon and its labels.

**Figure 5: Interface Icon**



- a Interface Number Label
- b Administrative Status Label
- c Interface Type Label
- d Network Type Label
- e MAC Address Label
- f IP Address Label
- g Gauge Label

### Interface Number Label

This label displays the number of this interface.

### Administrative Status Label

This label displays the operational status and background color representing the current status of the interface.

Double-click this label to access the Interface Status view which provides the following information on the status of the interface:

- Operational Status - displays the current operational state of the interface (Up or Down).
- Administrative Status - allows you to select the desired operational state of the interface (Default, On, Off, or Testing).

### Interface Type Label

This label displays the type of network interface module. For example: Ethernet. Double-click this label to open the Interface Configuration view.

### Network Type Label

This label displays the type of network this interface is connected to. Double-click this label to open the Generic Interface Model Information view for the interface.

### Physical Address Label

This label displays the MAC address of the StrataCom interface. Double-click this label to open the Interface Address Translation Table. This table cross-references device IP addresses to device MAC (Ethernet) addresses for selected nodes between networks. Double-clicking on any column entry opens an address-specific Address Translation Table Information view. This view provides the same information as the corresponding row for the IF Address Translation table, but allows you to modify field values.

### IP Address Label

Double-click this label to open the Secondary Address Panel which cross-references device IP address to device MAC (Physical) addresses for selected nodes between networks.

### Gauge Label

This label displays the performance statistic determined by the Gauge Control panel. Double-click this label to open the Port Performance view.

### Interface Threshold View

Accessed by selecting Thresholds from the **Icon Subviews** menu, the Interface Threshold view allows a user to set statistical thresholds on a per interface basis with the **File > Save All Changes** feature.

## Icon Subviews Menu Selections

[Table 2](#) lists each of the Icon Subviews menu selections available for the Interface Label.

**Table 2: Interface Icon Menu**

Option	Opens the...
Detail	Interface Detail view which shows three pie charts for Packet Breakdown, Error Breakdown, and Discard Breakdown statistics.
IF Status	Interface Status view that displays the Operational and Administrative Statuses.
IF Configuration	Interface Configuration view that displays the Operation and Administration Statuses, Last Change, IP Address/Network Mask, Physical Address, Bandwidth, Packet Size, and Queue Length.
Model Information	Model Information view
IF Address Translation Table	IF Address Translations Table to display the Interface Index, Physical Address, and Network Address. Double-click on a field entry to open a dialog box where you can change the information.

**Table 2: Interface Icon Menu (Continued)**

Option	Opens the...
Secondary Address Panel	Secondary Address Panel displays the current IP address for this interface. Save changes by clicking on the <b>Update</b> button.
Thresholds	IF Threshold view is where you can change the Load, Packet Rate, Error Rate, and % Discarded Threshold On/Off statuses.

Subviews menu, allows you to change the type of statistical information displayed on the Gauge label of the Interface icon. See ***SPECTRUM Views*** for detailed information on this panel.

## Interface Description Map

This view, accessed by double-clicking the background of the Interface Options panel and selecting Inf Description Map from the Icon Subviews menu, displays the Index and Description for the device interface. Double-clicking on a table entry opens the Interface Configuration View for the highlighted Interface Index. See **SPECTRUM Views** for detailed information on this view.

## Gauge Control Panel

This panel, accessed by double-clicking the background of the Interface Options panel and selecting Gauge Control Panel from the Icon



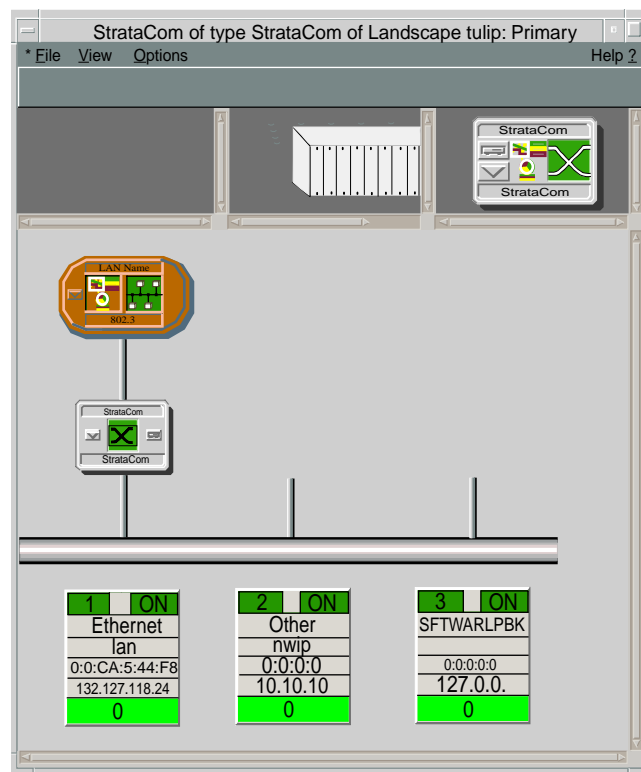
# Device Topology View

This view describes the Device Topology view that is accessible from the Icon Subviews menu for the Cisco StrataCom.

This view ([Figure 6](#)) displays interface icons that represent the connections between the Cisco StrataCom and the devices it is connected to. The Interface Icons provide the same information and menu options as those described in the Device view.

For more general information about the Device Topology (DevTop) view, see ***SPECTRUM Views*** documentation.

**Figure 6: StrataCom Device Topology View**

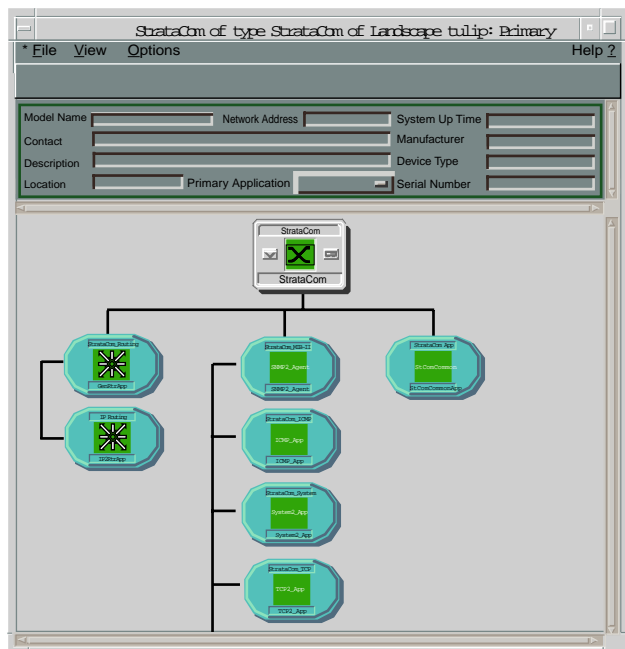


# Application Views

This section describes the Application Views that are available for the Cisco StrataCom.

This view displays icons that represent the applications supported by this device. [Figure 7](#) shows an example of the StrataCom Application view.

**Figure 7: Example Application View**



## Applications Supported

The StrataCom devices support both common applications (those supported by all or most devices) and a device-specific application. [Table 3](#) lists the applications that are commonly available for many or all devices managed by SPECTRUM. Because they are common throughout device management within SPECTRUM, they are not described in this guide but are described in the guide that is listed in the table.

**Table 3: Common Applications Supported**

Application	Reference
Routing (GenRtrApp includes IP2 Routing)	<b><i>Routing Services</i></b>
MIB-II (SNMP2_Agent includes ICMP, System, UDP, and TCP)	<b><i>MIB-II Applications</i></b>

# StrataCom Application

This section describes the device-specific StrataCom application. The StrataCom application is supported by the **StComCommonApp** model type. [Table 4](#) lists the application-specific subviews available from the Icon Subviews menu for this application. Descriptions of the subviews follow this table.

**Table 4: Application Icon Subviews Menu Selections**

Option	Opens the...
SwitchShelf Config	SwitchShelf Configuration view ( <a href="#">Page 20</a> ).
SwitchShelf Slot Info	SwitchShelf Slot Information view ( <a href="#">Page 21</a> ).
Switch If	Switch IF Table view ( <a href="#">Page 24</a> ).
Connection View	Connection view ( <a href="#">Page 25</a> ).
Trap Registration	Trap Registration view ( <a href="#">Page 28</a> ).
Error Status	Error Status view ( <a href="#">Page 29</a> ).
Strm Error Status	Strm Error Status view ( <a href="#">Page 30</a> ).

**Table 4: Application Icon Subviews Menu Selections (Continued)**

Option	Opens the...
Port Information	Frame Relay Logical Port Configuration Tables view, Frame Relay Logical Port Statistics Table view, ATM Port Configuration Table view, ATM Port Egress Queue Table view, and the ATM Port Statistics Table view ( <a href="#">Page 31</a> ).
Switch Media	DS1 Interfaces view, DS3 Interfaces Table view, Sonet Interface view, DS1 Interface Statistics Table view, DS3 Interface Statistics Table view, and Sonet Interface Statistics view ( <a href="#">Page 46</a> ).
Voice Information	Voice Channel view, Voice Endpoint view, Voice Endpoint Statistics view, and Voice Endpoint Map view ( <a href="#">Page 50</a> ).
Frame Relay Information	Frame Relay Bandwidth Class view, Frame Relay Endpoint view, Frame Relay Endpoint Statistics view, and Frame Relay Endpoint Map view ( <a href="#">Page 59</a> ).
ATM Information	ATM Bandwidth Class view, ATM Endpoint view, ATM Endpoint Map view, and ATM Endpoint Statistics view ( <a href="#">Page 70</a> ).

**Table 4: Application Icon Subviews Menu Selections (Continued)**

Option	Opens the...
Trunk Information	Frame Relay Routing Trunk view, ATM Trunk view, Frame Relay Trunk Packet Statistics view, and ATM Trunk Statistics view ( <a href="#">Page 90</a> ).
Model Information	Model Information view described in <i><b>SPECTRUM Views</b></i> .

## Table Selections

A special feature that several of the tables have allows you to select the fields in a table you want to see, instead of displaying every field in the table.

The steps for using this feature are as follows:

- 1 Click on the **Table Selection** button located at the bottom of the table.
- 2 Click on the fields you want to see or **Select All** if you want to display all of the fields.
- 3 Select **Save All Changes** from the **File** menu for the changes to take affect.

## SwitchShelf Config

This view provides you with variables used to manage the switch shelf-wide configuration.

To access this view, select **Switchshelf Config** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

### Master Stats

The IP address of the master statistics collection management workstation.

### TFTP Coll Intvl

The current TFTP statistics collection file interval that can be configured on the switch.

### TFTP Bckt Intvl

The current TFTP statistics collection bucket interval that can be configured on the switch.

### TFTP Time

The current time for TFTP statistics collection. This field replaces the functionality originally supplied by the daytime handler application.

### Software Error

This field notifies you that a switch software error has been logged on this shelf.

**Card Error**

This field notifies you that a switch card error has been logged on this shelf.

**SEnet IPAddr**

The switch Ethernet interface IP address.

**SEnet IPMask**

The switch Ethernet interface IP address mask.

**SEnet Mac Addr**

The switch Ethernet interface MAC address.

**SEnet Gw Addr**

The switch Ethernet interface gateway address.

**SNet IPAddr**

The switch network interface IP address.

**SNet IPMask**

The switch network interface IP address mask.

**SNet Node Name**

The switch network node name.

**SNet Node Number**

The switch network node number.

**Domain Number**

The switch network domain number.

**Node Type**

The switch network node type.

**Alarm Status**

The switch alarm status.

**Prim Sw Revision**

The switch primary software revision.

**Sec Sw Revision**

The switch secondary software revision.

**Time Zone**

The switch configured time zone.

**Rebuild Status**

This field is used by the INS to determine if the switch shelf has experienced a rebuild. This field also serves as the heartbeat mechanism.

**Junction Node**

The flag indicating whether the node is a junction node.

**VC Poll Rate**

The VC (Virtual Circuit) polling rate (in minutes). This system-wide field, which can be configured via CLI command “cnfsysparm,” is used to specify the period for the switch to poll connection statistics.

**SwitchShelf Slot Info**

This view provides you with information that is used to manage the switch shelf card cage

information. The table is indexed by slot. The objects in this table can be grouped into five categories:

- Card Y-redundancy information
- Card status
- Front card information
- Back card information
- Processor card-specific information (applicable only to processor cards)

To access this view, select **Switchshelf Slot Info** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

### Index

The slot number for the switch shelf slot information table.

### Y-Redundancy

The card Y-redundancy status.

### Y-Red Slot

The associated slot for this card's Y-redundancy. The status for this field is:

- Secondary slot index - if the slot is a primary slot.
- Primary slot index - if the slot is a secondary slot.
- Ignored - if the slot is null.

### Card Status

The current card status. Values are: Active, Empty, Standby.

### Card Fail

The card failed flag. Values are: True or False.

### Fail Intermit

The card failed intermittently flag. Values are: True or False.

### SelfTest Fail

The card self-test failed flag. Values are: True or False.

### SelfT Fail Int

The card self-test failed intermittently. Values are: True or False.

### Bus Fail

The card bus failed flag. Values are: True or False.

### Front Card Type

The front card type.

### Front Serial

The front card serial number.

### Back Installed

The flag indicating if the back card is installed.

### Back Type

The back card type. Values are: True or False.

**Back Serial**

The back card serial number.

**RAM Version**

The RAM version ID of the processor card. Since this field is applicable only to processor cards, for other card types a null string will be returned.

**ROM Version**

The ROM version ID of the processor card. Since this field is applicable only to processor cards, for other card types a null string will be returned.

**BRAM Version**

The BRAM version ID of the processor card. Since this field is applicable only to processor cards, for other card types a null string will be returned.

**BOOT Id**

The BOOT ID of the processor card. Since this field is applicable only to processor cards, for other card types a null string will be returned.

**RAM Size**

The RAM size of the processor card in Megabytes. Since this field is applicable only to processor cards, for other card types -1 will be returned.

**FEPRAM Size**

The Flash EPROM size of the processor card in Megabytes. Since this field is applicable only to

processor cards, for other card types -1 will be returned.

**BRAM Size**

The BRAM size of the processor card in Megabytes. Since this field is applicable only to processor cards, for other card types -1 will be returned.

**Front Rev**

The hardware and firmware revision of the front card.

**Back Rev**

The hardware revision of the back card.

**Activate Time**

This gives the time stamp of the last time the card was reset.

**Ft Num Port**

Number of ports supported by the front card. This is for BXM only.

**Ft Queue**

Size of the Egress/Ingress Queue memory available on the card. This field is for BXM only.

**Ft Line Format**

Front line format. This field is for BXM only.

**Ft Channel**

Number of channels supported by the front card.  
This field is for BXM only.

**Bk Num Port**

Number of ports supported by the back card. This field is for BXM only.

**Bk Line Format**

The back card line format.

**Bk Sonet Mode**

The sonet mode (BXM only), where “smf” is single-mode format, “mmf” is multi-mode format, and “smflr” is single-mode format long reach. This field is for BXM only.

**ForeSight**

If the card supports ForeSight, for line card only.  
Values are: Yes or No.

**Mux Bus Util**

The percentage of the Muxbus utilization. This field is defined for FRP, FRM, and UFM module on IPX/IGX only. For other cards, the utilization is “-1.”

**Table Selection**

Click on this button to select the fields you want to display in the Switch Shelf Slot Information

Table. See **Table Selections** on page 9 for more information about this feature.

**Switch If**

The Switch IF (Interface) Table provides you with a list of ports and subports.

To access this view, select **Switch IF** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

**IF Number**

The interface number is the index for the Switch Interface Table, as well as the Switch Media Tables and the Trunk Service Tables.

**Slot**

The slot number on the Switch Interface Table.

**Port**

The port number on the Switch Interface Table.

**Subport**

The subport number, used to identify virtual trunks.

**Media Type**

The type of interface. This field is normally used to provide information about a media layer, such as ds1, ds3, or sonet.



**Service**

User requested service for logical interface table row.

**Adm Status**

User requested state for logical interface table row. Values are: Up, Down, Add, or Delete.

**Oper Status**

The current state for logical interface table row.

## Connection View

This view describes all the connections associated with this managed entity. The endpoints (virtual circuits) related to these connections are defined in connection type-specific tables.

To access this view, select **Connection View** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

**Next Endpoint Index**

This field contains an appropriate value to be used when creating entries in the connection specific endpoint tables (e.g. Frame Relay Endpoint Table). A value of minus one (-1) indicates that no unassigned entries are available. To obtain the Next Endpoint Index value for a new entry, the manager issues a management protocol retrieval operation to obtain

the current value of this field. After each retrieval, the agent should modify the value to the next unassigned index.

**Index**

The connection table index for this connection.

**Local VC Endpt Desc**

The description for the local VC endpoint. Contains information about the domain, nodename, slot, port, and address value for the endpoint.

**Type**

The connection type.

**Other Index**

The remote node's connection table index for this connection endpoint.

**Remote VC Endpt Desc**

The description for remote VC endpoint. Contains information about the domain, nodename, slot, port, and address value for the endpoint.

**Master Flag**

Specifies whether this endpoint is the owner of the connection.

**Class Of Service**

A class of service for this connection. The lower the class value, the higher the routing priority of the connection.

**Group Flag**

Specifies whether this is a grouped connection. In the grouped connection case, the Connection First Endpoint Pointer object is a pointer to a list of endpoints in this group.

**Admin Status**

The requested state for connection. Values are: Up, Down, Modify, WriteOnly, CreateGroup, DeleteGroup.

**Oper Status**

The actual state of the connection. If the state is failed, then look to the objects No Route Found Failure and Bump Failure to determine reason for failure.

**No Route Found**

The connection is failed because no route to the remote endpoint could be found.

**Bump Failure**

The connection is failed because of insufficient bandwidth to route to the remote endpoint. This may have also been caused because a higher priority connection took this connection's bandwidth. A higher priority connection is one with the lowest Class Of Service (COS).

**Endpt Pointer**

The pointer to endpoint specific information. Using this pointer the user can obtain

configuration and statistical information about the connection.

**Current Route Description**

Describes the current route being used by this connection. This descriptor gives information about the domain, nodename, slot and possibly a port and virtual trunk number for each hop in the route.

**Preferred Route Description**

Describes the preferred route being used by this connection. This descriptor gives information about the domain, nodename, slot, and possibly a port for each hop in the route.

**Mst Pkt Load**

This field provides the minimum packet load available on the current path of this connection. This field is determined by comparing available bandwidth on every trunk on which the connection is currently routed and reporting the minimum available bandwidth. For interdomain connections this value represents available bandwidth through all domains. This variable is meaningful for routed connections only. These values are returned in packets per second.

**Mst Cell Load**

This field provides the minimum cell load available on the current path of this connection.

This field is determined by comparing available bandwidth on every trunk on which the connection is currently routed and reporting the minimum available bandwidth. For interdomain connections this value represents available bandwidth through all domains. This field is meaningful for routed connections only.

**Mst BData A Cmax**

This field provides the minimum BData A Cmax available on the current path of this connection. This field is determined by comparing available BData A Cmax on every trunk on which the connection is currently routed and reporting the minimum available. For inter domain connections this value represents available BData A Cmax through all domains.

**Mst BData B Cmax**

This field provides the minimum BData B Cmax available on the current path of this connection. This field is determined by comparing available BData B Cmax on every trunk on which the connection is currently routed and reporting the minimum available. For inter domain connections this value represents available BData B Cmax through all domains.

**Slv Pkts Load**

This field provides the minimum packet load available on the current path of this connection.

This field is determined by comparing available bandwidth on every trunk on which the connection is currently routed and reporting the minimum available bandwidth. For inter domain connections this value represents available bandwidth through all domains.

**Slv Cell Loads**

This field provides the minimum cell load available on the current path of this connection. This field is determined by comparing available bandwidth on every trunk on which the connection is currently routed and reporting the minimum available bandwidth. For inter domain connections this value represents available bandwidth through all domains.

**Slv BData A Cmax**

This field provides the minimum BData A Cmax available on the current path of this connection in slave->master direction. This field is determined by comparing available BData A Cmax on every trunk on which the connection is currently routed and reporting the minimum available. For inter domain connections this value represents available BData A Cmax through all domains.

**Slv BData B Cmax**

This field provides the minimum BData B Cmax available on the current path of this connection in slave->master direction. This field is determined

by comparing available BData B Cmax on every trunk on which the connection is currently routed and reporting the minimum available. For inter domain connections this value represents available BData B Cmax through all domains.

### Round Trip Delay

The value of this field is the calculated round trip delay (measured in milliseconds) of this connection. This field is calculated for Foresight connections only.

### Group Description

The description for the group identifier. This describes the connection group name.

#### Entry Creation

Located at the bottom of the Connection Table, click on this button to open the Connection Entry Creation view where you can make changes to the following table entries:

- Next ID
- Local VC Endpt Desc
- Remote VC Endpt Desc
- Class of Service
- Admin Status
- Preferred Route Description
- Group Desc

#### Table Selection

Click on this button to select the fields you want to display in the Connection Table. See **Table Selections** on page 9 for more information about this feature.

## Trap Registration

The Trap Registration is the switch platform registration table that provides access to trap events. This table currently supports a maximum of ten (10) SNMP managers registered to receive SNMP traps from the switch.

To access this table, select **Trap Registration** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

### IP Address

The IP address of the SNMP manager that is interested in receiving trap events. All events are sent to this IP address. If this field is set to zero, the entire entry is deleted.

### Admin Status

This field provides the actions available on this table.

### Source IP

This IP address is sent in the SNMP TRAP PDU as the source of the trap. The SNMP manager can optionally set this to any value, but if not set the agent will choose its value.

### UDP Port

This UDP port is used for transmission of all SNMP TRAP PDUs to the SNMP manager. It can either be set by the SNMP manager or the default SNMP TRAP port will be used.

### Sequence Num

This is the sequence number to be used when the next SNMP TRAP PDU is encoded and transmitted to this SNMP manager.

#### Entry Creation

Located at the bottom of the Trap Registration Table, clicking on this button opens the Trap Registration Entry Creation view where you can make changes to the following table entries:

- IP Address
- Admin Status
- Src Ip Address
- Udp Port

## Error Status

The Error Status Table is used to maintain status information about SNMP SET requests from a manager. When an SNMP SET completes, an entry is created. In addition to successful status, the manager is provided information associated with any failed requests. This table is indexed by request ID. The request ID is the SNMP PDU identifier associated with the failed request.

To access this view, select **Error Status** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

### Last Index in Error Status

If at least one entry exists in the error status table for the given manager, the value of this object contains the index corresponding to the last entry. If no entry exists in the error status table for the given manager the value of this object is -1.

### Request Id

This field contains the PDU (Protocol Data Unit) request ID associated with the error.

### Error Status Code

This field contains an error status code used by the manager to take automated corrective actions

when requests encounter failures. If no error is encountered, a successful status is provided.

### Status Description

This field contains error status information for failed SETS to one or more objects in Frame Relay Endpoint Table and/or vc Table. This field is updated only on failed SETS. Since the SNMP standard allows only limited number of error status returns, the managers can retrieve this variable to get additional information on a failed SET. Typically, this field will contain information specifying date, type of operation (SET or GET), current SNMP table and additional error information.

## Strm Error Status

The Strm Error Status Table is used to maintain status information about SNMP SET requests from a manager. It contains a list of error statuses for a given SNMP manager. Currently a limit of ten (10) entries are imposed on this table. Each manager is allowed to access its own table. Individual manager access is determined by IP address.

To access this view, select **Strm Error Status** from the **Icon Subviews** menu for the **StComCommonApp**. This view will display the following information:

### Last Index in Strm Error Status

If at least one entry exists in the error status table for the given manager, the value of this object contains the index corresponding to the last entry. If no entry exists in the error status table for the given manager the value of this object is -1.

### Request Id

This field contains the PDU (Protocol Data Unit) request ID associated with the error.

### Error Status Code

This field contains an error status code used by the manager to take automated corrective actions when requests encounter failures. If no error is encountered, a successful status is provided.

### Status Description

This field contains error status information for failed SETS to one or more objects within a table. This field is updated only on failed SETS. Since the SNMP standard allows only limited number of error status returns, the managers can retrieve this variable to get additional information on a failed SET. Typically, this field will contain information specifying date, type of operation (SET or GET), MIB table associated with the error, and detailed text regarding the failure.

## Port Information - FR Logical Port Config

The Frame Relay Logical Port Configuration Tables provide detailed views of the logical ports available on the switch and provide the following areas of information on a per port basis:

- Port identification
- Current admin and operation status
- Port-specific configuration
- LMI-related configuration
- Port error status
- Pointer (s) to other table

To access this table, select **Port Information** -> **FR Logical Port Config** from the **Icon Subviews** menu for the **StComCommonApp**. This table is divided into two tables, Status Table and Threshold Table, which display the following information:

### Status Table

#### Slot

The slot number for the port.

#### Port

The port number for the port.

### Port DLCI

Port DLCI for Frame Forwarding (FRI subrate interface only) - Get Operation. If the network manager attempts to GET this object from a T1/E1 port, SNMP\_OBJ\_NA (Object Not Applicable -1) is returned.

### Admin

The requested state for logical port table row. Values are: Up, Down, Configure, Add, and Delete a Frame Relay Logical port.

### Oper

The actual state of the logical port.

### Port Speed

The baud rate of the port.

### Clock Type

The type of port clock.

### Port Type

The type of FRP subrated port.

### VC Count

The number of virtual connections that terminate on this port.

### First VC

The object identifier (OID) denoting the first endpoint associated with this port. The management station can retrieve all the

information about the first connection by reading from the row pointed to by this OID.

### Aggregate Channels

The number of aggregate channels assigned to this logical port (FRI T1/E1 interface only) when the port is added. For subrate ports, this field is always “1.”

### Channel Speed

The channel speed (FRI T1/E1 interface only). For FRI subrate interface this field should be set as “NA.”

### IDE Map

The flag indicating whether IDE to DE mapping should be performed.

### LMI Mode

A numeric value that specifies the current LMI (Local Management Interface) operation mode. The values are shown in [Table 5](#).

**Table 5: LMI Operation Modes**

Value	Mode Description
1	(UNI) LMI Disabled
2	(UNI) LMI and Asynchronous update disabled

**Table 5: LMI Operation Modes (Continued)**

Value	Mode Description
3	(UNI) LMI Disabled
4	(UNI) LMI Enabled but asynchronous update disabled
5	(UNI) LMI Enabled using CFITT 0.933 Annex A parameters
6	(UNI) LMI Enabled using ANSI T1.617 parameters
7	(NNI) LMI Enabled using CCITT 0.933 Annex A parameters
8	(NNI) LMI Enabled using ANSI T1.617 parameters



### Note:

Option 7 and Option 8 in table are both bidirectional protocols defined by FRF.2 and available only if Frame Relay NNI feature is enabled.

### NNI

The flag indicating whether NNI (Network to Network Interface) is active on the specified slot port. This field is always “NO” if the network manager attempts to GET NNI Status from a



disabled LMI or LMI No Update port. In other cases, the value of this field is determined by whether the port is configured as NNI or not.

**Asyn**

A flag indicating whether the IPX should send unsolicited LMI update messages as they appear or wait for the polling from the user device. This field is always “NO” for ports without protocols; otherwise, its value is determined by the asynchronous status of the port. If the network manager attempts to SET this field for a port with none or LMI protocol, an error is reported.

**Conn SNA Pri**

The flag specifying if the connection SNA priority should be communicated to the user device attached to the port. Since this field is specific to LMI protocols, SNMP\_OBJ\_NA (-1) is returned if the network manager attempts to GET this field from a non-LMI port. If the network manager attempts to SET this field for a non-LMI port, an error is reported.

**Poll Cycle**

Full Status Polling Cycle (applicable to NNI FR port only), indicating the interval (in terms of polling cycles) at which a Full Status Report of all PVCs is requested. This interval should be between 1 and 255 polling cycles with a default of 6. If the network manager attempts to GET this

field from a port with a protocol other than NNIs, SNMP\_OBJ\_NA (-1) is returned. If the network manager attempts to SET this field for a port with a protocol other than NNIs (Network-to-Network Interfaces), an error is reported.

**EFCI to BECN**

This field indicates whether EFCI (Explicit Forward Congestion Indication) to BECN (Backward Explicit Congestion Notification) mapping is enabled.

**RTS**

The current status of the RTS (Request To Send) lead (subrated FRI only). “NA” is used for T1/E1 FRI. This field is valid only if the port is subrated and is DTE (Data Terminal Equipment). Otherwise, “NA” is returned.

**DTR**

The current status of the DTR (Data Terminal Ready) lead (subrated FRI only). “NA” is used for T1/E1 FRI. This field is valid only if the port is subrated and is DTE (Data Terminal Equipment). Otherwise, “NA” is returned.

**DCD**

The current status of the DCD lead (subrated FRI only). “NA” is used for T1/E1 FRI. This field is valid only if the port is subrated and DCE (Data

Communications Equipment.) Otherwise, “NA” is returned.

### CTS

The current status of the CTS (Clear To Send) lead (subrated FRI only). “NA” is used for T1/E1 FRI. This field is valid only if the port is subrated and DCE (Data Communications Equipment.) Otherwise, “NA” is returned.

### DSR

The current status of the DSR (Data Set Ready) lead (subrated FRI only). “NA” is used for T1/E1 FRI. This field is valid only if the port is subrated and is DCE (Data Communications Equipment.) Otherwise, “NA” is returned.

### Loopback

The loopback mode.

### Ext Conn

The flag indicating if the connection with the external device is lost.

### Status Table Selection

Click on this button to select the fields you want to display in the Status Table. See **Table Selections** on page 9 for more information about this feature.

## Threshold Table

### Slot

The slot number for the port.

### Port

The port number for the port.

### Port DLCI

Port DLCI for Frame Forwarding (FRI subrate interface only) - Get Operation. If the network manager attempts to GET this object from a T1/E1 port, SNMP\_OBJ\_NA (Object Not Applicable -1) is returned.

### Max Tx Bytes

The maximum bytes queued for transmission from the FRP port.

### ECNQ

The port Explicit Congestion Notification threshold. This is the point at which the BECN (Backward Explicit Congestion Notification) and FECN (Forward Explicit Congestion Notification) bits will be set in the communications to the user device.

### DE %

The percentage of the queue depth above which frames with the Discard Eligibility bit set will be discarded. An entry of 100% effectively disables DE for the port.

**Verification Timer**

The link integrity verification timer heartbeat (keep-alive) period. It should be set to 5 seconds more than the heartbeat time in the user device. Default is 15 seconds.

**Error**

The number of failures in the monitored events that cause the keep-alive process to report an alarm.

**Monitored Events**

The number of monitored events for the keep-alive process. A port communication fail condition is cleared after this number of successful polling cycles.

**Up RNR**

The Upper Receiver-Not-Ready (RNR) threshold. This threshold specifies the number of RNR indications from the user equipment before an alarm is cleared for this connection. The default is 75.

**Low RNR**

The Lower Receiver-Not-Ready (RNR) threshold. This threshold specifies the number of RNR indications from the user equipment before an alarm is cleared for this connection. The default is 75.

**Min Flags Frames**

The minimum number of flags between frames. All values in the range 1 to 255 are valid and the default is "1."

**OAM**

The alarm threshold for number of OAM heartbeat FastPackets missed before propagating A-bit=0. This threshold is applicable to both UNI and NNI Frame Relay ports when the node has FR NNI feature enabled and this FRP firmware supports it.

**Link Timer**

The Link Integrity Timer (applicable to NNI FR port only), indicating the interval at which a Status Enquiry message is sent. This interval should be between 5 and 30 seconds with a default of 6 seconds.

**CLLM Timer**

The timer for CLLM messages in CLLM intervals. No CLLM if "0" is configured. If a user configures this value to be greater than "0" then it should be in the range 4 to 35 units in hundredths of a second.

**Threshold Table Selection**

Click on this button to select the fields you want to display in the Threshold Table. See **Table**

**Selections** on page 9 for more information about this feature.

## Port Information - FR Logical Port Stats

The Frame Relay Logical Port Statistics tables provide the manager access to the statistics available on the logical ports.

To access this table, select **Port Information** -> **FR Logical Port Stats** from the **Icon Subviews** menu for the **StComCommonApp**. This table is divided into three tables, Received Statistics Table, Transmitted Statistics Table, and Error Statistics Table which display the following information:

### Received Statistics Table

#### Slot

The slot number for the port.

#### Port

The port number for the port.

#### Bytes

The number of received bytes by the frame relay logical port.

### Frames

The number of received frames by the frame relay logical port.

### Status Enquiry

The number of status enquiry requests received by the port from a user device (LMI/UNI) or NNI port on the other side.

### Status

The number of status messages received by the port from the NNI port on the other side.

### Update

The number of asynchronous status update messages received by the port from the NNI port on the other side.

### CLLM Frames

The frame relay logical port CLLM (Foresight) received frames.

### CLLM Bytes

The frame relay logical port CLLM (Foresight) received bytes.

### Transmitted Statistics Table

#### Slot

The slot number for the port.

#### Port

The port number for the port.

**Bytes**

The frame relay logical port transmitted bytes.

**Frames**

The frame relay logical port transmitted frames.

**Frames FECNs**

The frame relay logical port transmitted FECN frames.

**Frames BECNs**

The frame relay logical port transmitted BECN frames.

**Status**

The number of status messages transmitted from the port to a user device (LMI/UNI) or NNI port on the other side.

**Update**

The number of asynchronous status update messages transmitted from the port to a user device (LMI/UNI) or NNI port on the other side.

**Status Enquiry**

The number of status enquiry requests transmitted by the port to the NNI port on the other side.

**CLLM Frames**

The frame relay logical port CLLM (Foresight) transmitted frames.

**CLLM Bytes**

The frame relay logical port CLLM (Foresight) transmitted bytes.

**Discard Queue Frames**

The frame relay logical port discard queue transmitted frames.

**Discard Queue Bytes**

The frame relay logical port discard queue transmitted bytes.

**Transmitted Table Selection**

Click on this button to select the fields you want to display in the Transmitted Table. See **Table Selections** on page 9 for more information about this feature.

**Error Statistics Table****Slot**

The slot number for the port.

**Port**

The port number for the port.

**CRC**

The frame relay logical port CRC errors on received frames.

**Bad Frames**

The frame relay logical port frames with illegal formats.

**Alignment**

The frame relay logical port alignment errors on received frames.

**Illegal Lengths**

The frame relay logical port illegal length of received frames.

**DMA Overruns**

The frame relay logical port number of DMA overruns.

**Invalid Request**

The frame relay logical port invalid request count.

**Timeout (LMI UNI)**

The frame relay logical port timeout count.  
Transmit protocol LMI UNI.

**Sequence Number**

The frame relay logical port sequence number error. Transmit protocol UNI.

**CLLM Fail**

The frame relay logical port CLLM (Foresight) failures.

**LMI Fail Frames**

The frame relay logical port LMI failure frames.

**LMI Fail Bytes**

The frame relay logical port LMI failure bytes.

**Error Table Selection**

Click on this button to select the fields you want to display in the Error Table. See **Table Selections** on page 9 for more information about this feature.

## Port Information - Atm Port Config

The ATM Port Configuration Tables provide you with detailed views of the ATM ports available on the switch.

To access this table, select **Port Information** -> **ATM Port Config** from the **Icon Subviews** menu for the **StComCommonApp**. This table is divided into two tables, Status Table and Threshold Table, which display the following information:

### Status Table

#### Slot

The slot number for the ATM port.

#### Port

The port number for the ATM port.

#### Admin

The requested state for port table row. Values are Up or Down or you may modify the characteristics of the port.

#### Oper

The actual state of the port.

#### Type

Indicates whether the ATM ports on the card in this slot are UNI or NNI port. The switch supports this operation only on a per card level, so changing one port changes the others, also. The

value of this field cannot be changed if there are active connections on the card.

#### IF Type

The type of interface for this port.

#### Speed

The speed of the port in cells per second.

#### BASIS

Indicates port support for BASIS shelf. The value of this field cannot be changed if there are active connections on the port. For ASI-2 the value of this field is "none." An attempt to change the value of this field on an ASI-2 will return a BadValue error.

#### VC Count

The number of virtual connections that terminate on this port, to a maximum of 1024.

#### First VC

The Object Identifier (OID) denoting the first connection endpoint associated with this port. For current implementation, this OID points to the first connection on the port. It has a NULL OID value if there is no connection on this port. The management station can retrieve all the information about the first connection by reading from the row pointed to by this OID. This OID specifies the first column of the appropriate row in the ATM Endpoint Table.

**Metro Header**

The Metro Data Cell Header Format applies to T3 non-axis ports. The value of this field is set to “disable” by the switch every time the value of the object ATM Port Axis changes to or from “none.”

**Mgmt Protocol**

Indicates the port management protocol used for this port.

**ILMI VPI**

The virtual path identifier for the ILMI (Interim Local Management Interface) protocol. For UNI ports it ranges from 0 to 255 and for NNI ports it ranges from 0 to 4095.

**ILMI VCI**

The virtual channel for the ILMI (Interim Local Management Interface) protocol.

**ILMI Poll**

Enable ILMI (Interim Local Management Interface) keep-alive polling procedure.

**ILMI Trap**

If this field is enabled, the ILMI (Interim Local Management Interface) agent will send unsolicited Trap PDUs (Protocol Data Units.)

**LMI VPI**

The virtual path identifier for the LMI protocol. For UNI ports, it ranges from 0 to 255 and, for NNI ports it ranges from 0 to 4095.

**LMI VCI**

The virtual channel identifier for the ILMI (Interim Local Management Interface) protocol.

**LMI Poll**

If enabled, the LMI Poll will send a status enquiry message when the polling timer expires.

**Perc Utilization**

The values for the percentage utilization field are “disabled” or “enabled.” When “disabled,” the bandwidth for the connections terminating on the port will be used to determine the port load. When “enabled,” the bandwidth for the connection is multiplied by the percent utilization for the connection to determine the port load.

**SVC Channels**

The number of LCNs (Logical Channel Numbers) partitioned for the SVC (Switch Virtual Circuit) on this port. The range of the LCNs are defined by the ATM Port SVC LCN High and ATM Port SVC LCN Low objects. If this is a non-zero value, then the remaining SVC objects are valid.



**Share LCN**

Determines whether the LCNs are shared per port basis or per card basis.

**SVC Bit Map**

The Egress Queues on an ASI line port are partitioned between PVCs and SVCs. This is a bit string value ranging from 0 to 0xffffffff. A bit set indicates that the QBIN is allocated to SVC, and if set to “0”, it is allocated to PVCs.

**SVC Egress Queue**

The Egress Queue pool size on a line port is partitioned between PVCs and SVCs. This field reflects the SVC Egress Queue pool size. The default value is “0.” This field is valid if SVC Channels is non-zero.

**SVC Bandwidth**

The bandwidth on a port is partitioned between SVC and PVC. The bandwidth allocated for SVCs is stored in this object. The default value is “0.” This field is valid if Channels is non-zero.

**INS Use SVC**

This field is set by the INS to indicate that SVC partitioning information is being used by INS. The initial value is notInUse. This field is valid if SVC Channels is non-zero.

**INS Use PVC**

This field if set by the INS to indicate that PVC partitioning information is valid on this port.

**ILMI Addr Reg**

If enabled, the ILMI agent will support Address Registration.

**Status Table Selection**

Click on this button to select the fields you want to display in the Status Table. See **Table Selections** on page 9 for more information about this feature.

**Threshold Table****Slot**

The slot number for this port.

**Port**

The port number for this port.

**ILMI Poll**

The number of seconds between each keep alive poll transmitted by the port.

**ILMI Error**

The number of keep alive polls that must fail before the port is placed in the failed state.

**ILMI Event**

Specifies the number of keep-alive polls within which if the polls fail, the port is placed in the failed state.

**LMI Link Integ Timer**

Link integrity timer for the port.

**LMI Update Timer**

Update status timer for the port.

**LMI Stat Enq Retry**

The maximum number of times a Status Enquiry message is retransmitted.

**LMI Upd Stat Retry**

The maximum number of times an Update Status message is retransmitted.

**LMI Poll**

A polling timer that, if enabled, a Status Enquiry message is sent when this timer expires.

**SVC LCN Low**

The lower limit of the LCN value which can be used on this port for SVCs (Switched Virtual Circuits.) This field is valid if Svc Channels is non-zero.

**SVC LCN High**

The upper limit of the LCN value which can be used on this port. This field is valid if Svc Channels is non-zero.

**SVC VPI Low**

The lower limit of the VPI value which can be used on this port. The VCIs (Virtual Channel Identifiers) that can be used are from 32 to the largest VCI value allowed on that port. The default value is "100." This field is valid if Svc Channels is non-zero.

**SVC VPI High**

The upper limit of the VPI value which can be used on this port. The VCIs (Virtual Channel Identifiers) that can be used are from 32 to the largest VCI value allowed on that port. The default value is "100." This field is valid if Svc Channels is non-zero.

**SVC VCI Low**

This field stores the SVC VCI lower limit.

**SVC VCI High**

This field stores the SVC VCI upper limit.

**Threshold Table Selection**

Click on this button to select the fields you want to display in the Threshold Table. See **Table Selections** on page 9 for more information about this feature.

## Port Information - Atm Port Queue

The Port Information - Atm Port Egress Queue Table describes the fields that you have access to read and to configure the ATM Port Egress Queues.

To access this table, select **Port Information** -> **ATM Port Queue** from the **Icon Subviews** menu for the **StComCommonApp**. This table displays the following information:

### Index

Index into the port egress queue array of the given port that uniquely identifies this queue. If the value of Type is “axis,” then the value of this field also specifies the axis slot associated with this queue.

### Admin Status

User requested state for this port queue table row. The only operation supported in this table is modify.

### Type

The type of the queue. If the type is “axis”, then the Index specifies the axis slot associated with this queue.

### Depth

The storage depth allocated to this queue in block of cells. The block size is one cell for T3/E3 and

64 cells for OC3. The aggregate of the queue depths for all queues cannot exceed the maximum storage available for the port.

### CLP High

The CLP tagging activation threshold for this queue expressed as a percentage of queue depth.

### CLP Low

The CLP tagging deactivation threshold for this queue expressed as a percentage of queue depth.

### EFCI Thesh

The EFCI threshold for this queue expressed as a percentage of queue depth.

### Algorithm

The queue service algorithm. (Table 6) describes the settings for this field.

**Table 6: Queue Service Algorithm Settings**

Setting	Description
Off (1)	Never Serve
Always (2)	Always Serve
Ok (3)	Ok to Serve, Not Minimum Guaranteed
Min_Guar (4)	Minimum Guaranteed bw, No Limit

**Table 6: Queue Service Algorithm Settings  
(Continued)**

Setting	Description
Min_Smooth (5)	Minimum Guaranteed bw, Smoothed
Min_Delay (6)	Minimum Guaranteed bw, Delay Limited

## Port Information - ATM Port Statistics

The Port Information - Atm Port Statistics Table is composed of three tables that show ATM port statistical information.

To access these tables, select **Port Information** -> **ATM Port Statistics** from the **Icon Subviews** menu for the **StComCommonApp**. The three tables, Received Statistics Table, Transmitted Statistics Table, and Error Statistics Table, will display the following information:

### Received Statistics Table

#### Slot

The slot number for this port.

#### Port

The port number for this port.

#### AIS

Total number of cells received from AIS (Alarm Indication Signal).

#### FERF

Total number of cells received with FERF (Far-End Receive Failure.)

#### Cells

Total number of cells received.

#### CLP

Total number of cells received with CLP (Cell Loss Priority) set.

#### EFCI

Total number of cells received with EFCI (Explicit Forward Congestion Indication) set.

#### BCM

Total number of BCM cells received.

#### OAM

Total number of OAM (Operation, Administration, and Maintenance) cells received.

#### ILMI Get

ILMI (Internal Local Management Interface) Get requests received.

#### ILMI Get Next

ILMI Get Next requests received.

**ILMI Set**

ILMI Set requests received.

**ILMI Trap**

ILMI Traps received.

**ILMI Get Rspns**

ILMI Get Response messages received.

**ILMI Unknown PDU**

Unknown PDU (Protocol Data Unit) type received.

**LMI Stat Enquiry**

LMI (Local Management Interface) Status Enquiry messages received.

**LMI Status**

LMI Status messages received.

**LMI Update Stat**

LMI Update Status messages received.

**LMI Stat Ack**

LMI Status Acknowledge messages received.

**Transmitted Statistics Table****Slot**

The slot number for this port.

**Port**

The port number for this port.

**Cells**

Total number of cells transmitted.

**CLP**

Total number of cells transmitted with CLP (Cell Loss Priority) set.

**EFCI**

Total number of cells transmitted with EFCI (Explicit Forward Congestion Indication) set.

**ILMI Get Next**

ILMI (Internal Local Management Interface) Get Next requests transmitted.

**ILMI Get**

ILMI Get requests transmitted.

**ILMI Get Rsp**

ILMI Get Response messages transmitted.

**ILMI Trap**

ILMI Traps transmitted.

**LMI Status**

LMI (Local Management Interface) Status messages transmitted.

**LMI Update Stat**

LMI Update Status messages transmitted.

**LMI Stat Ack**

LMI Status Acknowledge messages transmitted.

**LMI Stat Enquiry**

LMI Status Enquiry messages transmitted.

**Error Statistics Table****Slot**

The slot number for this port.

**Port**

The port number for this port.

**Unknown Address**

The number of cells discarded due to unknown address.

**Buffer Overflow**

The number of times the port has incurred a cell buffer overflow.

**Non-Zero GFCs**

The number of non-zero GFC cells for a UNI port.  
For a NNI port, this value is “0.”

**ICSU Discards**

The count of cells discarded by the Ingress Control Service Unit.

**ICSU Emptyys**

The Ingress Control Service Unit free list empty count.

**BIP-16 Discard**

Total number of cells discarded due to BIP-16.

**Parity Discards**

Total number of cells discarded due to parity error.

**Switch Media - DS1 Interfaces**

The DS1 Interfaces table shows the DS1 interfaces on a switch.

To access this table, select **Switch Media -> DS1 Interfaces** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Switch IF**

The DS1 interface entry.

**Alarm Status**

The alarms state for logical interface table row.

**Alarm Type**

The alarm status information for the alarm state of a trunk or line.

**IF Type**

The type of interface used to provide information about the DS1 type: T1, E1.

**Line Code**

The line coding for the logical interface table row.

**Clock Source**

The transmit clock source for the logical interface table row.

## Switch Media -DS3 Interfaces

The DS3 Interfaces table shows the DS1 interfaces on a switch and supports Set functions equivalent to CLI commands (addlnloclp, addlnlocrmtlp, dellnlp) on T3/E3 lines or trunks.

To access this table, select **Switch Media -> DS3 Interfaces** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Switch IF**

The interface entry for the DS3 Interface table.

**Alarm State**

The alarms state for the logical interface table row.

**Alarm Type**

The alarm status information for the alarm state of a trunk or line.

**IF Type**

The type of interface used to provide information about the DS3 type: T3, E3.

**Line Code**

The type of ZCS coding used on this DS3 line.

**Clock Source**

The clock source for the logical interface table row.

**Local Loopback**

The line local loopback. The settings are as follows:

- Get - show the current local loopback status
- Set - enable or disable the local loopback.

**Line Lcl Rmt Lpb**

The line local remote loopback. The settings are as follows:

- Get - show the current local remote loopback status.
- Set - enable or disable the remote loopback.

**Note:**

The DS3 Line Local Loopback and the Remote Loopback can not be enabled at the same time.

## Switch Media - Sonet Interfaces

The Sonet Interfaces table shows a list of the Sonet interfaces.

To access this table, select **Switch Media** -> **Sonet Interfaces** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

### Switch IF

The interface entry for the Sonet Interfaces table.

### Alarm State

The alarms state for the logical interface table row.

### Alarm Type

The alarm status information for the alarm state of a trunk or line.

### IF Type

The type of interface used to provide information about the sonet type: T3, E3.

### Frame

The line framing standard for the logical interface table row.

### Speed

The line speed for the logical interface table row in units of megabits per second.

### Clock Source

The clock source for the logical interface table row.

### Local Loopback

The line local loopback. The settings are as follows:

- Get - show the current local loopback status
- Set - enable or disable the local loopback.

### Lcl Rmt Lpbk

The line local remote loopback. The settings are as follows:

- Get - show the current local remote loopback status.
- Set - enable or disable the local remote loopback.



### Note:

The Sonet Local Loopback and the Remote Loopback cannot be enabled at the same time.



## Switch Media - DS1 IF Stats

The DS1 Interface Statistics table shows the DS1 interface statistics on a switch.

To access this table, select **Switch Media -> DS1 IF Stats** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

### Switch IF

The interface entry for the DS1 Interface Statistics table.

### Bipolar Viol

The number of Bipolar Violations. This statistic is not applicable for E1 lines.

### Frame Slip

The number of Frame Slip errors.

### Out of Frame

The number of Out of Frame errors.

### Loss of Signal

The number of Loss of Signals errors.

### Frame Bit

The number of Frame Bit errors.

### CRC

The number of line detection CRC errors.

### Out of Multi-Frame

The number of Out of Multi-Frames errors.

### All One in Time

The number of All One in Time Slot 16 errors.

## Switch Media - DS3 IF Stats

The DS3 Interface Statistics table shows DS3 interfaces on the switch.

To access this table, select **Switch Media -> DS3 IF Stats** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

### Switch IF

The interface entry for the DS3 Interface Statistics table.

### Out Of Frames

The number of Out of Frame errors.

### Loss of Signal

The number of Loss of Signals errors.

### Code Violations

The number of Line Code Violations.

### C-Bit Parity CV

The number of C-bit Parity Code Violations.

**P-Bit Parity CV**

The number of P-bit Parity Code Violations.

**PLCP BIP-8 CV**

The number of PLCP BIP-8 Code Violations.

**ATM Cell Head CR**

The number of ATM Cell Header Checksum errors.

**Packet Head CRC**

The number of Packet Header CRC errors.

**PLCP Out of Frame**

The number of PLCP Out of Frame errors.

## Switch Media - Sonet IF Stats

The Sonet Interface Statistics table shows the Sonet interface statistics for the switch.

To access this table, select **Switch Media** -> **Sonet IF Stats** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Switch IF**

An interface entry.

**Out Of Frame**

The number of Out of Frame errors.

**Loss of Signals**

The number of Loss of Signals errors.

**ATM Cell Head Checksum**

The number of ATM Cell Header Checksum errors. This field is not applicable (0) to BXM (Broadband Switch Module).

## Voice Information - Voice Channel

The Voice Channel table has channel specific configuration information that is available for each of the voice channels.

To access this table, select **Voice Information** -> **Voice Channel** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Slot**

The slot number.

**Channel**

The channel number; this is the index to the Voice Channel table.

**Admin Status**

User requested operation for this table. The values supported on this table are modify and create.

**Endpt Pointer**

Pointer to channel Endpoint table. This may not necessarily have a value. If there is no corresponding Voice Channel Entry in the endpoint table, this field would be "0."

**IF**

The type of line interface associated with this channel.

**Adaptive Voice**

Determines whether the channel is configured for adaptive voice. This feature must be configured at both ends of the channel. The adaptive voice feature must also be equipped at each node terminating the connection. If the adaptive voice feature is enabled for a channel connection which is used for a "c" or "v" connection, VAD is automatically disabled on that channel when trunk bandwidth is available, and it is enabled when trunk bandwidth is needed. By DEFAULT this is True. This variable is not applicable if the channel is used for signaling.

**Dial Type**

Information about the dial type that is used on the channel. Default is Inband dial type. If type is user configured, the related objects for which values need to be provided are: Signalling Delay, Min Wink, and Payout Delay. If the values for any of these variables are not provided for user

configured dial type, the current values in the database shall be retained. Each of the variables can be set independently. This is true for CDP and CIP cards. By default every voice connection is configured with Inband signalling.

**Signalling Delay**

The signaling delay, in milliseconds (ms), to assign the user configurable dial type. The value specified is rounded to the closest multiple of 1.5 ms. The default value for inband is "96" and for pulse it is "96." When the dial type is inband or pulse, the value for this field should not be provided.

**Min Wink**

The minimum wink, in milliseconds, to assign to the user configurable dial type. The value specified is rounded off to the nearest whole multiple of 3ms. The default value for inband is "20" and for pulse it is "20." When the dial type is inband or pulse, the value for this field should not be provided.

**Payout Delay**

The payout delay, in milliseconds, assigned to the user configurable dial type. The value specified is rounded. The default value for inband is "200" and for pulse it is "200." When the dial type is inband or pulse, the value for this field should not be provided.

**Rx Sig ABit through DBit**

These fields represent the configurations of bit conversion to received signaling on a channel. The value is given as one of the enumeration above which have the following meaning as shown in [Table 7](#).

**Table 7: Receive Signaling for ABit through DBit**

Value	Description
one (1)	Signaling bit is 1.
zero (2)	Signaling bit is 0.
xmitTransparent (3)	Transmit signaling bit transparently.
noXmit (4)	Don't transmit signaling bit.
revSigBit (5)	Reverse/Inverse signaling bit.

The default value is one. If the signaling is not used at all, A=1, B=1, C=0, and D=1. The initialization value is xmitTransparent (3).

**Tx Sig ABit through DBit**

These fields allow the node to pass A channel signaling bits through unchanged, or to invert or hold them at a given value for a CDP/CIP circuit

line. It affects signaling bits in the transmit direction (e.g. to the CPE/PABX). The value is given as one of the enumeration above which have the following meaning as shown in [Table 8](#).

**Table 8: Transmit Signaling for ABit through DBit**

Value	Description
one (1)	Signaling bit is 1.
zero (2)	Signaling bit is 0.
xmitTransparent (3)	Transmit signaling bit transparently.
donotXmit (4)	Don't transmit signaling bit.
revSigBit (5)	Reverse/Inverse signaling bit.

The default value is "1." If the signaling is not used at all, A=1, B=1, C=0, and D=1. The initialization value is xmitTransparent (3.)

**IF Type Name**

The interface type assigned to a channel.

**Onhook ABit through DBit**

The values of A through D signaling bit, for which the IPX shall recognize an on-hook condition. The default value is unknown (4.) The value

corresponding to pre-defined Interface Types have been given in the table in the “Description” clause of field Voice Channel IF Type Name. If the Interface Type is a pre-defined type, the value is not provided for this field.

### Condition

The name of one of the condition criterion templates defined in the Voice Conditioning Table. The value corresponding to pre-defined interface Types have been given in the table in the “Description” clause of the object Voice Channel Interface Type Name. Currently, only the pre-defined conditioning templates are supported. If the interface type is pre-defined type, value is not provided for this field.

### Canceller

The integrated echo canceller channel parameters associated with the specified voice channel. By default it is disabled. If it has to be enabled from a disabled state then the values for the variables in [Table 9](#) have to be supplied.

**Table 9: Voice Channel Echo Canceller Values**

Name	Value	Description
voiceChannelEchoRtnLoss	High/ Low	Set the echo return loss to High/Low
voiceChannelEchotone	Enable/ Disable	Enables or disables the tone disabler.
voiceChannelEchoConv	Enable/ Disable	Enables or disables convergence
voiceChannelEchoNlp	Enable/ Disable	Enables or disables non-linear Processing

If any one of the variables is not specified, the previous value of that variable shall be retained. If the Echo Cancel is to be SET to disable, values for the related parameters are not allowed in the SET.

### Echo Return Loss

The Echo Return Loss if the echo canceller is enabled. The default value is High (2). If the Echo Cancel is to be SET to disable, values for the related parameters are not allowed in the SET.

**Tone Disabler**

Determines whether the Tone Disabler is enabled. The default value is Enable (1.) If the Echo Cancel is to be SET to disable, values for the related parameters are not allowed in the SET.

**Echo Convergence**

Determines whether the Echo Convergence is enabled. The default value is Enable (1.) If the Echo Cancel is to be SET to disable, values for the related parameters are not allowed in the SET.

**NonLinear**

Determines whether the NonLinear processing is enabled. The default value is Enable (1.) If the Echo Cancel is to be SET to disable, values for the related parameters are not allowed in the SET.

**In Gain**

The amount of gain inserted at the receiver side of a CDP/CIP circuit line on voice connections. The gain is specified in decibels to be assigned to the channel. The gain can be configured between +6 dB and -8 dB. By default it is zero.

**Out Gain**

The amount of gain inserted at the transmit side of a CDP/CIP circuit line on voice connections. The gain is specified in decibels to be assigned to the channel. The gain can be configured between +6 dB and -8 dB. By default it is zero.

**% Utilization**

The percentage of utilization of this channel. This object informs the system software of the expected utilization rate of connections with traffic dependent compression algorithm. For use in voice connections with VAD. Acceptable values are in the range of 0 to 100. The default value for voice is 40.

**Table Selection**

Click on this button to select the fields you want to display in the Voice Channel Table . See **Table Selections** on page 9 for more information about this feature.

## Voice Information - Voice Endpoint

The Voice Endpoint Table contains configuration information about each voice channel. This table is used to model a specific Voice Channel connection. This table contains parameters which are required to create a voice connection and configure the channel.

To access this table, select **Voice Information** -> **Voice Endpoint** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Index**

The index to the Voice Endpoint table.

**Remote Node Index**

The index for the remote node for this channel endpoint. For local (intra-node) connections, this index is associated with the local node and will be in the range of 1024 to 2047.

**Description**

Description for this voice channel. Contains information about the domain, nodename, slot, and channel for the connection.

**Other EndPt Desc**

Description for the remote channel. Contains information about the domain, nodename, slot, and channel for the connection.

**Admin Status**

The user requested state for voice endpoint table row. A user can create/delete/modify this voice channel connection by setting this object appropriately. To test a particular object, set the value to “test.”

**Oper Status**

The actual state of the voice channel. If the state failed, check No Route Found Failure, Bump Failure, and Test Failure to determine reason for failure.

**Rate Type**

The type of voice connection. [Table 10](#) lists the types and their descriptions.

**Table 10: Voice Connection Types**

Type	Description
a32	Uses ADPCM only. Can select 32/24/16 Kbps compression.
a16z	Standard 16kbps ADPCM only. Compressed code can have strings of zeros and should be used on lines that have other zero code suppression.
c32	Uses both ADPCM and Voice Activity Detection (VAD).
c24	Can select 32/24/16 Kbps ADPCM compression.
c16z	Standard 16Kbps ADPCM and Voice Activity Detection (VAD).
p	64 Kbps connection. No compression.
t	Transparent. Clean 64Kbps connection. No compression.

**End Point Fail**

Endpoint failed because of a remote endpoint failure. The remote endpoint is on a node that resides in another domain making the connection an inter-domain connection.

**No Route Found**

Channel connection failed because no route to the remote channel could be found.

**Bump Failure**

Channel connection failed because of insufficient bandwidth to route to the remote channel. This may have also been caused because a higher priority connection took this channel's bandwidth. A higher priority connection is one with the lowest Class Of Service (COS).

**Test Failure**

Channel failed because of the failure of a connection test.

**Test Type**

Specifies the type of test the user would like to conduct on this endpoint. Only testCon is currently defined. TestCon performs a test of voice path integrity in the connection.

**Loopback State**

Specifies the current Loopback State of the endpoint. The value returned from this object is a bitmap of the current loopback states associated with this endpoint.

**Connection Ptr**

A pointer to general connection information. Using this pointer the user can obtain connection status and routing information. This is an object

identifier specifying the first column of the appropriate row in the Connection Table.

**Channel Pointer**

A pointer to channel configuration information. Using this pointer the user can obtain all channel configuration information. This is an object identifier specifying the first column of the appropriate row in the Voice Channel Table.

**Trunk Avoid**

The user selectable types of trunks to avoid for the transfer of voice channel data. Current choices are to avoid satellite links, terrestrial links, or to not avoid any specific type of link. This object is optional during the creation of the endpoint.

**Avoid ZCS**

The flag to force the connection to avoid trunks with Zero Code Suppression. This object is optional during the creation of the endpoint.

**Endpoint State**

The state of the connection endpoint.

**Adaptive Voice**

Determines if the endpoint supports Adaptive voice.



**Endpt Adaptive**

Determines if the other endpoint supports Adaptive voice.

**Encoding**

The type of Encoding used at this endpoint.

**Other Encoding**

The type of Encoding used at the other endpoint.

**Endpoint Type**

The endpoint type.

**Local Lpbk State**

The local loopback state the user would like to set for the endpoint. On a Get, it reflects whether or not the channel is looped back.

**SVC Id**

Specifies the 32-bit identifier associated with this Switched Virtual Circuit (SVC.)

**Is SVC**

Specifies whether the 32-bit identifier is associated with a Switched Virtual Circuit (SVC) or with a Permanent Virtual Circuit (PVC.)

**Table Selection**

Click on this button to select the fields you want to display in the Voice Endpoint Table. See **Table Selections** on page 9 for more information about this feature.

## Voice Information - Voice EndPt Stats

The Voice Endpoint Statistics table contains voice endpoint related statistics.

To access this table, select **Voice Information** -> **Voice EndPt Stats** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Vc EndPt Index**

The index for the Voice Endpoint Statistics table.

**Packets Rx**

The number of packets received from the Muxbus by the local port card.

**Packets Tx**

The number of packets transmitted from the local port card onto the Muxbus.

**Rx Pkts Discard**

The number of packets received from the Muxbus by the local port card which are discarded before being transmitted out to the port.

**Sprv Pkts Tx**

The number of supervisory packets transmitted from the local port onto the Muxbus. Supervisory packets reflect signaling bit transitions for voice connections.

**Sprv Pkts Rx**

The number of supervisory packets received from Muxbus associated with a connection.

**V25 Modem On**

The number of seconds the V.25 modem is detected and the connection is upgraded to PCM (Pulse Code Modulation).

**DSI On**

The number of seconds that a connection is performing Digital Speech Interpolation (DSI).

**Offhook**

The number of seconds that a connection is offhook. The onhook state is determined by onhook A/B/C/D bits defined by variables in the Voice Endpoint Table. A connection which is not onhook is treated as offhook.

**Inservice**

The number of seconds a connection is in-service. A connection is said to be in-service if its endpoints are not in alarm, the cards required to support this connection are present, and the connection is routed.

## Voice Information - Voice EndPt Map

This table allows you to determine the table indices associated with the connection which are defined by the physical attributes of slot and channel.

To access this table, select **Voice Information** -> **Voice EndPt Map** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Slot**

The slot number associated with the requested connection endpoint.

**Channel**

The channel number associated with the requested connection endpoint.

**Endpoint Pointer**

This field contains a pointer in the service specific endpoint table which corresponds to the slot and channel specified in the columns above.

**Connection Pointer**

This field contains a pointer in the connTable which corresponds to the slot and channel specified in the columns above.

## Frame Relay Information - Frame Relay Bandwidth

The Frame Relay Bandwidth Table includes the Frame Relay Bandwidth Class Table and the From Other Endpoint Table.

The Frame Relay Bandwidth Table describes the Frame Relay Bandwidth Classes available on the node. In order to avoid specifying all the bandwidth parameters while creating a frame relay connection, the user can specify a frame relay bandwidth class by its number, which is available as the index into these tables.

To access these tables, select **Frame Relay Information -> Frame Relay Bandwidth** from the **Icon Subviews** menu for the **StComCommonApp**. These tables, Frame Relay Bandwidth Class Table and From Other Endpoint Table, will display the following information:

### Frame Relay Bandwidth Class Table

#### Index

The index for the Frame Relay Bandwidth Class Table.

#### MIR(100b/s)

The Minimum Transmit Bandwidth (MIR) parameter (in 100s of bits per second) for this endpoint.

#### CIR(100b/s)

The value of this field is equal to the Committed Information Rate (CIR) parameter (in 100s of bits per second) for this endpoint.

#### VC Queue

The value of this field is the maximum queue depth (in bytes) for this endpoint.

#### BC

The value of this field is equal to the committed burst size (Bc) parameter (in bytes) for this endpoint.

#### PIR(100b/s)

The Peak Transmit Bandwidth (PIR) parameter (in 100s of bits per second) for this endpoint.

#### Be

The value of this field is equal to the excess burst size (Be) parameter (in bytes) for this endpoint.

#### Max Credits

The maximum credits that can be accrued for this endpoint.

#### Ecn Queue

The threshold setting used by the explicit congestion notification feature for this endpoint's transmit queue. The value is specified in bytes.

**QIR(100b/s)**

The transmit Quiescent Information Rate (QIR) parameter (in 100s of bits per second) for this endpoint. This value can range between the MIR and PIR values and must be between 2400 and 204800. This parameter has meaning only if the Endpoint Enable FST parameter is set to true.

**% Utilization**

The value of this field is equal to the channel percentage utilization setting for this endpoint. This is the expected long-term utilization of the channel by this endpoint.

**From Other Endpoint Table****Index**

The index for the From Other Endpoint Table.

**MIR(100b/s)**

The Minimum Receive Bandwidth (MIR) parameter (in 100s of bits per second) for the other endpoint.

**CIR(100b/s)**

The value of this field is equal to the Committed Information Rate (CIR) parameter (in 100s of bits per second) for the other endpoint.

**VC Queue**

The value of this field is the maximum queue depth (in bytes) for this endpoint.

**Bc**

The value of this field is equal to the committed burst size (Bc) parameter (in bytes) for the endpoint.

**PIR**

The Peak Receive Bandwidth (PIR) parameter (in 100s of bits per second) for the other endpoint.

**Be**

The value of this field is equal to the excess burst size (Be) parameter (in bytes) for the other endpoint.

**Max Credits**

The maximum credits that can be accrued for the other endpoint.

**Ecn Queue**

The threshold setting used by the explicit congestion notification feature for the other endpoint's receive queue. This value is specified in bytes.

**QIR(100B/s)**

The receive Quiescent Information Rate (QIR) parameter (in 100s of bits per second) for the other endpoint.

## % Utilization

The value of this field is equal to the channel percentage utilization setting for the other endpoint.

## Frame Relay Information - Frame Relay Endpoint

These tables define Frame Relay connection endpoint configuration. Each connection (Virtual Circuit (VC) or Permanent Virtual Circuit (PVC)) endpoint describes the particular characteristics of the endpoint. Such information as local and remote endpoint description, class of service, input and output bandwidth parameters, special PVC options, and PVC statistics are maintained in the endpoint. Also, mechanisms for determining the connection information associated with this endpoint, the next endpoint of a bundle or group, and a means for creating or deleting this endpoint are included.

To access these tables, select **Frame Relay Information -> Frame Relay Endpoint** from the **Icon Subviews** menu for the **StComCommonApp**. These tables, Frame Relay Endpoint Table and Frame Relay Other Endpoint Table, will display the following information:

## Frame Relay Endpoint Table

### Index

Index into this table for this endpoint. Although only 1024 endpoints may exist on a node, 1048 possible index values exist to support DAX (intra-node) connections.

### Description

String describing this endpoint. Contains information about the domain, nodename, slot, port, and DLCI for the endpoint. Domain and nodename need not be given but slot, port, and DLCI values must exist.

### Admin Status

User requested state for endpoint table row. A user can create this Virtual Circuit (VC) or delete this VC by setting this object appropriately. If the endpoint is to be modified, set this object identifier to modify. The user also has the capability to test a particular object. For this capability, the user must set this value to test.

### Oper Status

The actual state of the endpoint. If the state is failed, then look to the objects No Route Found Failure, Bump Failure, Endpoint Failure, and Test Failure to determine reason for failure.

**No Route Found**

Endpoint is failed because no route to the remote endpoint could be found.

**Bump Failure**

Endpoint is failed because of insufficient bandwidth to route to the remote endpoint. This may have also been caused because a higher priority connection took this endpoint's bandwidth. A higher priority connection is one with the lowest Class Of Service (COS).

**Endpoint Fail**

Endpoint is failed because of a remote endpoint failure. The remote endpoint is on a node that resides in another domain making the connection an inter-domain connection.

**Test Failure**

Endpoint is failed because of the failure of a connection test.

**Connection Ptr**

Pointer to general connection information. Using this pointer the user can obtain connection status and routing information. Specifically, this is an object identifier specifying the first column of the appropriate row in the Connection Table.

**Next Pointer**

Pointer to next endpoint information. This allows logical sets of endpoints to be linked up; for

example, the endpoints associated with a bundle or group. Specifically, this is an object identifier specifying the first column of the appropriate row in the Frame Relay Endpoint Table.

**Ptr Next EdPt**

Pointer to next endpoint information for the port associated with this endpoint. For example, using this pointer, all frame relay endpoints on a given slot port can be determined. Specifically, this is an object identifier specifying the first column of the appropriate row in the Frame Relay Endpoint Table.

**Trunk Avoid**

User selectable types of trunks to avoid for the transfer of FRP data. Current choices are to avoid satellite links, terrestrial links, or to not avoid any specific type of link. This object is optional during the creation of the endpoint.

**Avoid ZCS**

Flag to force the connection to avoid trunks with Zero Code Suppression (ZCS). This field is optional during the creation of the endpoint.

**Sub Type**

Displays the Frame Relay endpoint subtype object.

**Endpt Bandwidth**

User selectable connection class which defines the operating parameters for the connection. Any or all of these parameters can be overridden by specifying the bandwidth parameters directly. This object is required during the creation of an endpoint.

**MIR**

The Minimum Transmit Bandwidth (MIR) parameter (in 100s of bits per second) for this endpoint. During creation of an endpoint, this object is required if no class index is provided. This is because the default values of bandwidth parameters not provided are derived from this object.

**CIR**

The value of this object is equal to the Committed Information Rate (CIR) parameter (in 100s of bits per second) for this endpoint. This value will be defaulted to the provided MIR during an endpoint create. 0-CIR feature allows this object to be 0.

**Committed Burst**

The value of this object is equal to the committed burst size (Bc) parameter (in bytes) for this endpoint. This parameter is entered instead of the Frame Relay Endpoint VcQSize parameter. If both the Bc and VcQSize are provided, the values are tested for compatibility.

**Excess Burst**

The value of this object is equal to the excess burst size (Be) parameter (in bytes) for this endpoint. This parameter is entered instead of the Frame Relay Endpoint PIR parameter. If both the Be and the PIR are provided, the values are tested for compatibility.

**Queue Depth**

The value of this object is the maximum queue depth (in bytes) for this endpoint. This parameter is entered instead of the Frame Relay Endpoint Committed Burst Size (Bc) parameter. If both the VcQSize and the Bc are provided, the values are tested for compatibility.

**PIR**

The Peak Transmit Bandwidth (PIR) parameter (in 100s of bits per second) for this endpoint. This parameter is entered instead of the Frame Relay Endpoint Excess Burst Size (Be) parameter. This value defaults to the current port speed of the associated interface.

**Max Credits**

The maximum credits that can be accrued for this endpoint.

**Congest Notif**

The threshold setting used by the explicit congestion notification feature for this endpoint's

transmit queue. This value is specified in bytes. When the Frame Relay Endpoint VcQSize value exceeds this value, then the FECN (Forward Explicit Congestion Notification) bit will be set in all frames transmitted to the remote endpoint.

### **QIR**

The transmit Quiescent Information Rate (QIR) parameter (in 100s of bits per second) for this endpoint. This value can range between the MIR and PIR values and must be between 2400 and 204800. This parameter has meaning only if the Frame Relay Endpoint Enable FST parameter is set to “true.”

### **% Utilization**

The value of this object is equal to the channel percentage utilization setting for this endpoint. This is the expected long-term utilization of the channel by this endpoint.

### **ForeSight**

The value of this object determines whether or not the ForeSight option is being used. If set to false, the ForeSight is not used, and if true then ForeSight will be used.



### **Note:**

This object CAN NOT be set for ATFR or ATFST connection during connection modification.

### **Priority**

The value of this object determines the priority that is given to the data. If set to low, then the data is given the standard priority, and if set to high, the data will be given a higher priority. Higher priority data is placed at the beginning of the port's queues.

### **Group Flag**

Specifies whether this is a grouped connection. The MIB object Group Flag provides grouping information about all the connections using that Connection Table entry whereas this object provides the same information for this endpoint.

### **Local Loopback**

Specifies the Local Loopback state you can set for the endpoint.

### **Loc Rmt Lpbk**

Specifies the Local-Remote Loopback state you can set for the endpoint.



### Loopback State

Specifies the current Loopback state of the endpoint. The value returned from this object is a bitmap of the current loopback states which the endpoint has configured. There are currently 16 loopback states an endpoint may have configured. If NO LOOPBACK is configured, the agent will return “-1.”

### Test Type

Specifies the type of test the user would like to conduct on this endpoint. There are currently two types of tests. Test will exercise continuity, while Test Delay will calculate the delay incurred on the connection. The result of the Test Delay may then be accessed through the Frame Relay Endpoint Round Trip Delay object. To invoke a test, the Admin Status is required to be set to test (4). The NoLoop options provide the user the capability to execute the tests without automatically invoking a loopback at the remote endpoint.

### Round Trip Delay

The value of this object is the calculated round trip delay (measured in milliseconds) of this Frame Relay endpoint. A delay test is invoked through setting the Frame Relay Endpoint Test Type object to Test Delay.

### Group Description

Describes the group this endpoint is associated with. The format of the group text description is domain.node.grp\_number.

#### Frame Relay Endpoint Table Selection

Click on this button to select the fields you want to display in the Frame Relay Endpoint Table. See **Table Selections** on page 9 for more information about this feature.

### Frame Relay Other Endpoint Table

#### Index

Index into this table for this endpoint.

#### Endpt Index

Index into remote node's Frame Relay Endpoint Table for this PVC endpoint. For DAX (intra-node) connections, this index is associated with the local node and will be in the range of 1024 to 2047.

#### Description

String describing the remote endpoint. Contains information about the domain, nodename, slot, port, and DLCI for the endpoint.

#### MIR

The Minimum Receive Bandwidth (MIR) parameter (in 100s of bits per second) for the

other endpoint. This parameter is actually the Frame Relay Endpoint MIR parameter for the remote endpoint. During creation of an endpoint, this object is required if no class index is provided. This is because the default values of bandwidth parameters not provided are derived from this object.

**CIR**

The value of this field is equal to the Committed Information Rate (CIR) parameter (in 100s of bits per second) for the other endpoint. This parameter is actually the Frame Relay Endpoint CIR parameter for the remote endpoint. 0-CIR feature allows this object to be 0.

**Bc**

The value of this field is equal to the committed burst size (Bc) parameter (in bytes) for the endpoint.

**Be**

The value of this field is equal to the excess burst size (Be) parameter (in bytes) for the other endpoint.

**Queue**

The value of this field is the maximum queue depth (in bytes) for this endpoint.

**PIR**

The Peak Receive bandwidth (PIR) parameter (in 100s of bits per second) for the other endpoint.

**Max Credit**

The maximum credits that can be accrued for the other endpoint.

**Expl cong**

The threshold setting used by the explicit congestion notification feature for the other endpoint's receive queue. This value is specified in bytes.

**QIR**

The receive Quiescent Information Rate (QIR) parameter (in 100s of bits per second) for the other endpoint. This value can range between the MIR and PIR values and must be between 2400 and 2048000.

**% Util**

The value of this object is equal to the channel percentage utilization setting for the other endpoint. This is the expected long-term utilization of the channel by the other endpoint.

## Frame Relay Information - Frame Relay Endpt Stats

The Frame Relay Endpoint Statistics Table defines Frame Relay connection endpoint statistics with information in the following areas:

- Received or transmitted frame statistics
- Received or transmitted but discarded frame statistics
- Frame relay flow and congestion control statistics
- Received or transmitted frame and bytes over CIR

To access these tables, select **Frame Relay Information -> Frame Relay Endpt Stats** from the **Icon Subviews** menu for the **StComCommonApp**. The three tables, Received Statistics Table, Transmit Statistics Table, and Discarded Statistics Table, will display the following information:

### Received Statistics Table

#### EndPt Index

The index to the Frame Relay Endpoint Received Statistics table.

#### Bytes

The number of frame bytes received from the local frame relay port.

#### Frames

The number of frames received from the local frame relay port.

#### Packets

The number of packets received from the Muxbus by the local port card.

#### Bytes DE set

The number of frames received from the local frame relay port with their DE bit set. DE bits are only counted by model D frame relay firmware or later.

#### Frames DE set

The number of frames received from the local frame relay port with their DE bit set. DE bits are only counted by model D frame relay firmware or later.

#### Bytes Excess CIR

Frame Relay Endpoint received bytes from port in excess of CIR (Committed Information Rate.)

#### Frames Excess CIR

Frame Relay Endpoint received frames from port in excess of CIR.

**Sec In Services**

The number of seconds in which a connection is in service. A connection is considered to be in service if its endpoint is not in alarm, the cards required to support the connection are present, and the connection is routed.

**Congest Minutes**

Number of minutes in which 50% or more frames are tagged FECN (Forward Explicit Congestion Notification) by the FRP.

**Transmit Statistics Table****EndPt Index**

The index to the Transmit Statistics Table.

**Bytes**

The number of frame bytes received from the Muxbus and transmitted out the frame relay port.

**Frames**

The number of frames transmitted out the frame relay port.

**Packets**

The number of packets transmitted to the Muxbus by the local port card.

**Frames FECN**

The number of frames transmitted out the local frame relay port with FECN bit set.

**Frames BECN**

The number of frames transmitted out the local frame relay port with BECN (Backward Explicit Congestion Notification) bit set.

**Frames DE set**

The number of frames transmitted out the local frame relay port with their DE (Discard Eligible) bit set. DE bits are only counted by model D frame relay firmware or later.

**Bytes Excess CIR**

Frame Relay Endpoint transmitted bytes from port in excess of CIR.

**Frames Excess CIR**

Frame Relay Endpoint transmitted frames from port in excess of CIR.

**Discarded Statistics Table****EndPt Index**

The index to the Discarded Statistics Table.

**Rx Bytes**

The number of frame bytes received from the local frame relay port but discarded before being transmitted onto the Muxbus, due to the age of the frame in the IPX system or lack of buffer space.

**Rx Frames**

The number of frames received from the local frame relay port but discarded before being transmitted onto the Muxbus, due to the age of the frame in the IPX system or lack of buffer space.

**Rx Packets**

The number of packets received from the Muxbus by the local port card but discarded before being transmitted.

**Rx Frames DE set**

The number of frames received from the local frame relay port with their DE bit set, which are discarded before being transmitted onto the Muxbus. DE bits are only counted by model D frame relay firmware or later.

**Tx Bytes**

The number of frame bytes received from the Muxbus but discarded before being transmitted out the frame relay port, due to the age of the frame in the IPX system, CRC error, or lack of buffer space.

**Tx Frames**

The number of frames, which are discarded by the local frame relay card before being transmitted out the local port, due to the age of

the frame in the IPX system, a CRC error, or lack of buffer space.

## Frame Relay Information - Frame Relay Endpt Map

This table allows the user to determine the table indices associated with the connection defined by the physical attributes of slot, port, and DLCI (Data-Link Connection Identifier.)

To access this table, select **Frame Relay Information -> Frame Relay Endpt Map** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Slot**

The slot number associated with the requested connection endpoint.

**Port**

The port number associated with the requested connection endpoint.

**DLCI**

The Frame Relay DLCI associated with the requested connection endpoint. For Frame Forwarding connections, this field is "16383."

**Endpoint Pointer**

The pointer in the service specific Endpoint table which corresponds to the slot, port, and DLCI specified in the columns above.

**Connection Pointer**

The pointer in the Connection Table which corresponds to the slot, port, and DLCI specified in the columns above.

**ATM Information - ATM Bandwidth**

These tables describe ATM bandwidth classes available on the switch. In order to avoid specifying all the bandwidth parameters while creating an ATM connection, the user can specify an ATM bandwidth class by number (available as the index into these tables).

To access these tables, select **ATM Information** -> **ATM Bandwidth** from the **Icon Subviews** menu for the **StComCommonApp**. The two tables, ATM Bandwidth Class Table and Other End-Port Table, will display the following information:

**ATM Bandwidth Class Table****Index**

The index for the ATM Bandwidth Class Table.

**VC Queue**

The value of this object is the maximum queue depth (in cells) for this endpoint.

**EFCI Queue**

The threshold setting used by the explicit congestion notification feature for this endpoint's transmit queue. This value is a percentage.

**QIR**

The transmit Quiescent Information Rate (QIR) parameter (in cells per second) for this endpoint.

**% Utilization**

The value of this object is equal to the channel percentage utilization setting for this endpoint. This is the expected long-term utilization of the channel by this endpoint.

**CBS**

The value of this object is equal to the Compliant Burst Size (CBS) in cells for this endpoint. This object corresponds to the Maximum Burst Size (MBS) defined by ATM standard documents.

**IBS**

The value of this object is equal to the Initial Burst Size in cells for this endpoint.

**CCDV**

The value of this object is equal to the Compliant Cell Delay Variation for this endpoint. It

corresponds to the CDVT (0+1) parameter defined by the ATM standard documents.

**CLP High**

The value of this object is equal to the CLP (Cell Loss Priority) tagging activation threshold for this endpoint.

**CLP Low**

The value of this object is equal to the CLP (Cell Loss Priority) tagging deactivation threshold for this endpoint.

**CLP Tagging**

The value of this object enables the CLP (Cell Loss Priority) tagging for handling non-compliant cells. When enabled the CLP bit is set on non-compliant cells. When disabled non-compliant cells are discarded.

**ForeSight**

The value of this object determines whether or not the ForeSight option is being used. If set to false, then ForeSight is not used, and if true then ForeSight will be used.

**ForeS Rate Up**

The value of this object is equal to the ForeSight Rate Up value in cells per second per adjust for this endpoint.

**ForeS Rate Down**

The value of this object is equal to the ForeSight Rate Down value expressed as percentage of MCR (Minimum Cell Rate).

**QIR To**

The value of this object is equal to the QIR timeout value. This object corresponds to the Initial Cell Rate (ICR) timeout.

**FS Min Adjust**

The value of this object is equal to the ForeSight minimum adjustment period.

**Description**

This field contains a textual description of this Frame Relay Bandwidth Class.

**BCM**

The value of this object enables the generation of RM (Resource Management) cells when congestion is detected in the connection.

**FGCRA**

The value of this object enables FGCRA (Frame-based Generic Rate Control Algorithm). FGCRA is applicable with AAL-5 (ATM Adaptation Layer) traffic only.

**Connection Type**

The value of this object defines the connection type associated with this class.

**NRM**

The Normal Response Mode (NRM) is the maximum number of cells a source may send for each forward RM-cell. This object applies only to ABR (Available Bit Rate) without ForeSight.

**FRTT**

The Fixed Round-Trip Time (FRTT) is the sum of the fixed and propagation delays from the source to a destination and back. This object applies only to ABR without ForeSight.

**TBE**

Transient Buffer Exposure (TBE) is the negotiated number of cells that the network would like to limit the source of sending during startup periods, before the first RM-cell returns. This object applies only to ABR without ForeSight.

**VS/VD**

Virtual Source/Virtual Destination (VS/VD) is used to divide an ABR connection into two or more separately controlled ABR segments. This flag indicates whether the ATM endpoint (both ends) will serve as VS/VD or not. This object applies only to ABR without ForeSight.

**Policing**

Specifies the traffic policing for this endpoint.

**PCR**

The Peak Cell Rate (PCR) (0+1) specifies an upper bound on rate at which traffic can be submitted on an ATM connection. This object applies to the First Leaky Bucket for leaving cells with Cell Loss Priority of “0” or “1.”

**SCR**

Sustainable Cell Rate (SCR) is an upper bound on the conforming average rate of an ATM connection, over time scales which are long relative to those for which the PCR is defined. Enforcement of this bound by the UPC could allow the network to allocate sufficient resources, but less than those based on the PCR, and still ensure that the performance objectives (e.g., Cell Loss Ratio) can be achieved.

**MCR**

Minimum Cell Rate (MCR) specifies the rate at which the source is always allowed to send.

**ATM Bandwidth Class Table Selection**

Click on this button to select the fields you want to display in the ATM Bandwidth Class Table. See **Table Selections** on page 9 for more information about this feature.



## **Other End-Port Table**

### **Index**

The index into the From Other End-Port Table.

### **VC Queue**

The value of this field is the maximum queue depth (in cells) for the other endpoint.

### **EFCI Queue**

The threshold setting used by the explicit congestion notification feature for the other endpoint's transmit queue.

### **QIR**

The transmit Quiescent Information Rate (QIR) parameter (in cells bits per second) for the other endpoint. This value can range between the MIR and PIR values and must be between "0" and "96000." This parameter has meaning only for ForeSight connections. This field corresponds to the Initial Cell Rate (ICR.)

### **% Utilization**

The value of this object is equal to the channel percentage utilization setting for the other endpoint. This is the expected long-term utilization of the channel by the other endpoint.

### **CBS**

The value of this object is equal to the Compliant Burst Size (CBS) in cells for the other endpoint.

This field corresponds to the Maximum Burst Size (MBS) defined by ATM standard documents.

### **IBS**

The value of this field is equal to the Initial Burst Size (IBS) in cells for the other endpoint.

### **CCDV**

The value of this field is equal to the Compliant Cell Delay Variation (CCDV) for the other endpoint.

### **CLP High**

The value of this field is equal to the Cell Loss Priority (CLP) tagging activation threshold for the other endpoint.

### **CLP Low**

The value of this field is equal to the Cell Loss Priority (CLP) tagging deactivation threshold for the other endpoint.

### **BCM**

The value of this field enables the generation of RM (Resource Management) cells when congestion is detected in the connection. This is the other endpoint view.

### **FGCRA**

The value of this field enables Frame-based Generic Rate Control Algorithm (FGCRA), which is applicable with AAL-5 traffic only.

**PCR**

The Peak Cell Rate (0+1) (PCR), specifies an upper bound on rate at which traffic can be submitted on an ATM connection. This field applies to the First Leaky Bucket for leaving cells with Cell Loss Priority of “0” or “1.”

**SCR**

The Sustainable Cell Rate (SCR), is an upper bound on the conforming average rate of an ATM connection, over time scales which are long relative to those for which the PCR is defined. Enforcement of this bound by the UPC could allow the network to allocate sufficient resources, but less than those based on the PCR, and still ensure that the performance objectives (e.g., Cell Loss Ration) can be achieved.

**MCR**

Other end Minimum Cell Rate (MCR), specifies the rate at which the source is always allowed to send.

## ATM Information - ATM Endpoint

This view shows the ATM Endpoint Tables used to model a PVC endpoint. These tables contain the traffic parameters for ATM endpoint.

To access these tables, select **ATM Information** - > **ATM Endpoint** from the **Icon Subviews** menu

for the **StComCommonApp**. These two tables, ATM Endpoint Table 1 and ATM Endpoint Table 2, will display the following information:

### ATM Endpoint Table 1

**Index**

The index into the table for this endpoint. Although only 5000 endpoints may exist on a node, 10000 possible index values exist to support DAX (intra-node) connections.

**Description**

Describes this endpoint. Contains information about the domain, nodename, slot, port, VPI (Virtual Path Identifier), and VCI (Virtual Channel Identifier) for the endpoint. Domain and nodename need not be given but slot, port, VPI, and VCI values must exist.

**Other Index**

The index into the remote node's ATM Endpoint table for this endpoint. For DAX (intra-node) connections, this index is associated with the local node and will be in the range of 5000 to 9999.

**Other Description**

Describes the remote PVC endpoint. Contains information about the domain, nodename, slot, port, VPI, and VCI for the endpoint.

**Admin Status**

The user requested state for endpoint table row. A user can create this VC or delete this VC by setting this object appropriately. If the endpoint is to be modified, set this object identifier to modify.

**Oper Status**

The actual state of the endpoint. If the state is failed, check the fields No Route Found, Bump Failure, and Test Failure to determine reason for failure.

**No Route Found**

The endpoint failed because no route to the remote endpoint can be found.

**Bump Failure**

The endpoint failed because of insufficient bandwidth to route to the remote endpoint. This may have also been caused because a higher priority connection took this endpoint's bandwidth. A higher priority connection is one with the lowest Class Of Service (COS).

**End Point Fail**

The endpoint failed because of a remote endpoint failure. The remote endpoint is on a node that resides in another domain making the connection an inter-domain connection.

**Test Failure**

The endpoint failed because of the failure of a connection test.

**Connection Ptr**

The general connection information pointer. Using this pointer the user can obtain connection status and routing information. This is an object identifier specifying the first column of the appropriate row in the Connection Table.

**Next Pointer**

The next endpointer information pointer. This allows logical sets of endpoints to be linked up; for example, the endpoints associated with a bundle or group. This is an object identifier specifying the first column of the appropriate row in the ATM Endpoint Table.

**Next Endpt Ptr**

The next endpoint information pointer for the port associated with this endpoint; for example, using this pointer all ATM endpoints on a given slot/port can be determined. This is an object identifier specifying the first column of the appropriate row in the ATM Endpoint Table.

**Trunk Avoid**

The user selectable types of trunks to avoid for the transfer of ATM data. Current choices are to avoid satellite links, terrestrial links, or to not

avoid any specific type of link. This object is optional during the creation of an endpoint.

### **Avoid ZCS**

This is a flag to force the connection to avoid trunks with Zero Code Suppression (ZCS). This object is optional during the creation of an endpoint.

### **Sub type**

The ATM endpoint subtype object.

### **BW Class**

The user selectable connection class which defines the operating parameters for the connection. Any or all of these parameters can be overridden by specifying the bandwidth parameters directly. This object is required during the creation of an endpoint.

### **VC Queue**

The maximum VC queue depth. The following configurations apply:

- Units: cells
- Applicable connection types: ATFR, ABRSTD, ABRFST, ATFR, ATFST
- Default:
  - ATFR/ATFST: 1366
  - others: 16000
- Dependency: VSVD = enable(1)

- Applicable cards:

- ASI: T3/D3 only
  - ABR: 1-64000 cells
  - ATFR/ATFST: 1-1366 cells
- BXM: 0-64000 cells

### **EFCI Queue**

The threshold setting used by the explicit congestion notification feature for this endpoint's transmit queue. The following configurations apply:

- Units: percentage
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Range: MCR-PCR
- Default: 50
- Dependency: ICR >= MCR, VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### **QIR**

The transmit Quiescent Information Rate (QIR) parameter. Also known as Initial Cell Rate (ICR), the rate at which a source should send initially and after an idle period. The following configurations apply:

- Units: cells per second
- Applicable connection types: ABRSTD, ABRFST, ATFST

- Range: MCR-PCR
- Default: 50
- Dependency: ICR >= MCR, VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### % Utilization

The channel percentage of bandwidth utilization. Bandwidth allocation based on percent utilization depends on the connection types. The following configurations apply:

- Units: % percentage
- Applicable connection types:
  - UBR: default = 1%
  - CBR: default = 100%  
bandwidth allocation = PCR(0+1) \* % Util
  - VBR, ATFR:  
default = min (120\* (SCR/PCR), 100%)  
bandwidth allocation = PCR (0+1) \* %Util
  - ABR, ABRFST, ATFST:  
default = 100%  
bandwidth allocation = MCR \* %Util

### CBS

The Compliant Burst Size (CBS.) Also known as Maximum Burst Size (MBS.) The following configurations apply:

- Units: cells
- Applicable connections types:

- VBR, ATFR
- ABRSTD, ABRFST, ATFST: VSVD = enable (1)
- Default: 1000
- Range:
  - BXM: 1-5000000
  - ASI: 1-24000

### IBS

The Initial Burst Size (IBS.) The following configurations apply:

- Units: cells
- Applicable connection types: ATFR (1-107 cells), ATFST
- Default: 1

### CCDV

The Compliant Cell Delay Variation (CCDV.) Also known as CDVT (0+1,) Cell Delay Variation Tolerance, which specifies the maximum time period for accumulated violations of cell-arrival time parameters. This field applies to the First Leaky bucket for cells with Cell Loss Priority of “0” or “1.” The following configurations apply:

- Units: microseconds
- Applicable connection types: UBR, CBR, VBR, ATFR, ABRSTD, ABRFST, ATFST
- Defaults:

- CBR: 10000
- Others: 250000
- Dependency: This object is not allowed for BPX -> IPX atf/atfst connections.

### CLP High

The Cell Loss Priority (CLP) tagging activation threshold. The following configurations apply:

- Units: % of VCQ Size
- Applicable connections: ABRSTD, ABRFST, ATFST
- Default: 80%
- Dependency: VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### CLP Low

The Cell Loss Priority (CLP) tagging deactivation threshold. The following configurations apply:

- Units: % of VCQ Size
- Applicable connections: ABRSTD, ABRFST, ATFST
- Default: 35%
- Dependency: VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### Other VC Queue

The other end maximum VC ( Virtual Circuit) queue depth. The following configurations apply:

- Units: cells
- Applicable connection types: ATFR, ABRSTD, ABRFST, ATFR, ATFST
- Default:
  - ATFR/ATFST: 1366
  - Others: 16000
- Dependency: VSVD = enable (1)
- Applicable cards:
  - ASI: T3/E3 only
    - ABR: 1-64000 cells
    - ATFR/ATFST: 1-1366 cells
  - BXM: 0-64000 cells

### Other EFCI Queue

The threshold setting used by the explicit congestion notification feature for the other endpoint's transmit queue. The following configurations apply:

- Units: percentage
- Applicable connection types: ABRSTD, ABRFST, ATFR, ATFST
- Default:
  - ATFR/ATFST: 100
  - Others: 30

### Other QIR

The transmit Quiescent Information Rate (QIR) parameter of the other end. Also known as Initial

Cell Rate (ICR,) the rate at which a source should send initially and after an idle period. The following configurations apply:

- Units: cells per second
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Range: MCR-PCR
- Default: 50
- Dependency:  $ICR \geq MCR$ , VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### Other % Utiliza

The other end channel percentage of bandwidth utilization. Bandwidth allocation based on % utilization depends on the connection types. The following configurations apply:

- Units: % percentage
- Applicable connection types:
  - UBR: default = 1%
  - CBR: default = 100%
    - bandwidth allocation =  $PCR (0+1) * \% Util$
  - VBR, ATFR:
    - default =  $\min (120 * (SCR / PCR, 100\%))$
    - bandwidth allocation =  $PCR (0+1) * \% Util$
  - ABR, ABRFST, ATFST:

- default = 100%
- bandwidth allocation =  $MCR * \% Util$

### Other CBS

The other end Compliant Burst Size (CBS.) Also known as Maximum Burst Size (MBS.) The following configurations apply:

- Units: cells
- Applicable connection types: VBR, ATFR, ABRSTD, ABRFST, ATFST
- Default: 5000000
- Range:
  - BXM: 1-5000000
  - ASI: 1-24000

### Other IBS

The other end Initial Burst Size (IBS.) The following configurations apply:

- Units: cells
- Applicable connection types: ATFR (1-107 cells), ATFST
- Default: 1

### ATM Endpoint Table 1 Selection

Click on this button to select the fields you want to display in ATM Endpoint Table 1. See **Table Selections** on page 9 for more information about this feature.

## ATM Endpoint Table 2

### Index

The index into the table for this endpoint. Although only 5000 endpoints may exist on a node, 10000 possible index values exist to support DAX (intra-node) connections.

### Other CCDV

The Compliant Cell Delay Variation, also known as CDVT (0+1,) Cell Delay Variation Tolerance, which specifies the maximum time period for accumulated violations of cell-arrival time parameters. This field applies to the First Leaky bucket for cells with Cell Loss Priority of “0” or “1.” The following configurations apply:

- Units: microseconds
- Applicable connection types: UBR, CBR, VBR, ATFR, ABRSTD, ABRFST, ATFST
- Default:
  - CBR: 10000
  - Others: 250000
- Dependency: This object is not allowed for BPX->IPX AFT/AFTST connections.

### Other CLP High

The other Cell Loss Priority (CLP) tagging activation threshold. The following configurations apply:

- Units: % of VCQ Size
- Applicable connections: ABRSTD, ABRFST, ATFST
- Default: 80%
- Dependency: VSVD = enable(1)
- Applicable cards: BXM, ASI-T3/E3

### Other CLP Low

The other end Cell Loss Priority (CLP) tagging deactivation threshold. The following configurations apply:

- Units: % of VCQ Size
- Applicable connections: ABRSTD, ABRFST, ATFST
- Default: 35%
- Dependency: VSVD = enable (1)
- Applicable cards: BXM, ASI-T3/E3

### CLP Tagging

The Cell Loss Priority (CLP) tagging for handling non-compliant cells. When enabled the CLP bit is set on non-compliant cells. When disabled non-compliant cells are discarded. The following configurations apply:

- Applicable connection types: UBR
- Default: enable (1)

### ForeSight

The ForeSight (FST) flow control mechanism.



**RBA Rate Up**

The ABR rate adjustment up. Also known as RIF, Rate Increase Factor, which controls the amount by which the cell transmission rate may increase upon receipt of an RM-cell. The following configurations apply:

- Units:
  - For ABRSTD connections, this object should be in  $2^n$ , where  $n = 0 - 15$
  - For FST connections, this object should be in absolute values of cells per second up to the PCR.
  - A new value should always be given for this object when a connection is changed from one type to the other, since they require different units.
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Dependency: VSVD = enable (1)
- Default:
  - FST: max [PCR/128, 10]
  - ABRSTD: 128
- Applicable cards: BXM, ASI-T3/E3

**RBA Rate Down**

The ABR Rate adjustment down, also known as RDF, Rate Decrease Factor, which controls the amount by which the cell transmission rate may

decrease upon receipt of an RM-cell. The following configurations apply:

- Units:
  - For ABRSTD connections, this object should be in  $2^n$ , where  $n=0 - 15$ .
  - For FST connections, this object should be in percentage (0%-100%)
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Dependency: VSVD = enable (1)
- Default:
  - FST: 93
  - ABRSTD: 16
- Applicable cards: BXM, ASI-T3/E3

**QIR Timeout**

The QIR timeout value. Also known as ACR Decrease Time Factor (ADTF,) which is the time permitted between sending RM-cells before the rate is decreased to ICR. The following configurations apply:

- Unit: milliseconds
- Applicable connection types: ABRSTD, ABRFST, ATFST: VSVD = enable (1)
- Default: 1000
- Dependency:
  - ASI: 1000-255000
  - BXM: 62-8000

- Applicable cards: BXM, ASI-T3/E3

**FrSght Min Adjust**

The ForeSight minimum adjustment period. Also known as TRM, which provides an upper bound on the time between forward RM-cells for an active source. The following configurations apply:

- Units: milliseconds
- Applicable connection types: ABRSTD, ABRFST, AFTST: VSVD = enable (1)
- Default: 100
- Range:
  - ASI T3/E3: 20-250 msec
  - BXM:
    - ABRSTD: 1-100 msec
    - ABRFST: 3-255 msec
- Applicable cards: BSM, ASI-T3/E3

**Group Flag**

Specifies whether this is a grouped connection.

**OAM State**

The end to end OAM state.

**RM Cell Gener**

The value of this field enables the generation of RM cells when congestion is detected in this connection. The following configurations apply:

- Applicable connection types: ABRSTD, ABRFST, ATFST
- Default: disable (2)
- Applicable cards: BXM, ASI-T3/E3

**FGCRA**

The Frame-based Generic Rate Control Algorithm (FGCRA) applicable with AAL-5 traffic only, so it is also known as AAL5 Frame-based Traffic Control (FBTC.) The following configurations apply:

- Applicable connection types:
  - UBR, VBR, ABRSTD, ABRFST, ATFST
  - ATFR: Cannot be set, but always enable (1)
- Default:
  - UBR, ABR: enable (1)
  - others: disable (2)
  - All VPCs: disable (2), regardless of the connection type.

**Local Lpbk State**

Specifies the Local Loopback State the user would like to set for the endpoint.

**Loopback State**

Specifies the current loopback state of the endpoint.

**Test Type**

Specifies the type of test the user would like to conduct on this endpoint.

**Round Trip Delay**

The value of this field is the calculated round trip delay (measured in milliseconds) for an OAM cell that is sent across the network to the remote node where it is looped back and returned to this node.

**Other BCM**

The value of this field is equivalent to ATM Endpoint BCM.

**Other FGCRA**

The value of this field is equivalent to ATM Endpoint FGCRA.

**Group Description**

Describes the group this endpoint is associated with.

**Local-Remote Lpbk State**

Specifies the Local-Remote Loopback State set for the endpoint.

**NRM**

The maximum number of cells a source may send for each forward RM-cell. The following configurations apply:

- Units: cells

- Applicable connection types: ABRSTD only
- Default: 32
- Dependency: VSVD = enable (1)
- Applicable cards: BXM only

**FRTT**

The Fixed Round-Trip Time (FRTT) is the sum of the fixed and propagation delays from the source to a destination and back. The following configurations apply:

- Units: milliseconds
- Applicable connection types: ABRSTD only
- Default: 0
- Dependency: VSVD = enable (1)
- Applicable cards: BXM only

**TBE**

The Transient Buffer Exposure (TBE) is the negotiated number of cells that the network would like to limit the source to sending during startup periods, before the first RM-cell returns. The following configurations apply:

- Units: cells
- Applicable connection types: ABRSTD only
- Default: 1048320
- Dependency: VSVD = enable (1)
- Applicable cards: BXM only

**VS/VD**

The Virtual Source/Virtual Destination (VS/VD) is used to divide an ABR (Available Bit Rate) connection into two or more separately controlled ABR segments. This flag indicates whether the ATM endpoints (both ends) will serve as VS/VD or not. The following configurations apply:

- Applicable connection types:
  - ABRSTD
  - ABRFST: Cannot be set, but always disable (2).
  - ATFST: Cannot be set, but always disable (2).
- Dependency:
  - This object can be given only if ABR/VSVD software package is equipped; otherwise, it will be rejected regardless of its value.

**Policing**

Specifies the traffic policing for this endpoint. The following configurations apply:

- Applicable connection types:
  - CBR (only pcrplc (4) or none (5)), VBR, ATFR, ABRSTD, ABRFST, ATFST: VSVD = enable (1)
- Default: CBR connections - pcrplc (4)  
others - vbr3 (3)

- Dependency: Not allowed for ABRSTD without VSVD. In this case, it is set to pcrplc (4).

**PCR**

The Peak Cell Rate, PCR (0+1,) specifies an upper bound on rate at which traffic can be submitted on an ATM connection. This object applies to the First Leaky Bucket for leaving cells with Cell Loss Priority of “0” or “1.” The following configurations apply:

- Units: cells per second
- Applicable connection types: UBR, CBR, VBR, ATFR, ABRSTD, ABRFST, ATFST
- Default: 50
- Ranges:
  - T3: MCR-96000
  - E3: MCR-80000
  - OC3: MCR-353208
  - OC12: MCR-1412832
  - Limited to 7-5333 cells/sec for ATFR connections.

**Other PCR**

The other end PCR ( 0+1,) Peak Cell Rate, specifies an upper bound on rate at which traffic can be submitted on an ATM connection. This object applies to the First Leaky Bucket for leaving cells with Cell Loss Priority of “0” or “1.” The following configurations apply:

- Units: cells per second
- Applicable connection types: UBR, CBR, VBR, ATFR, ABRSTD, ABRFST, ATFST
- Default: 50
- Ranges:
  - T3: MCR-96000
  - E3: MCR-80000
  - OC3: MCR-353208
  - OC12: MCR-1412832
  - Limited to 7-5333 cells/sec for ATFR connections.

## SCR

The Sustainable Cell Rate (SCR,) is an upper bound on the conforming average rate of an ATM connection, over time scales which are long relative to those for which the PCR is defined. Enforcement of this bound by the UPC could allow the network to allocate sufficient resources, but less than those based on the PCR, and still ensure that the performance objectives (e.g., Cell Loss Ration) can be achieved. The following configurations apply:

- Units: cell per second
- Applicable connection types:
  - VBR, ATFR
  - ABRSTD, ABRFST, ATFST: VSVD = enable (1)

- Ranges:
  - ASI/BNI
    - T3: 7-96000
    - E3: 7-80000
    - OC3: 7-353208
  - BXM
    - T3: 50-96000
    - E3: 50-80000
    - OC3: 50-353208
    - OC12: 50-1412832
- Default: 50

## Other SCR

The Other end SCR, Sustainable Cell Rate, is an upper bound on the conforming average rate of an ATM connection, over time scales which are long relative to those for which the PCR is defined. Enforcement of this bound by the UPC could allow the network to allocate sufficient resources, but less than those based on the PCR, and still ensure that the performance objectives (e.g., Cell Loss Ration) can be achieved. The following configurations apply:

- Units: cell per second
- Applicable connection types:
  - VBR, ATFR
  - ABRSTD, ABRFST, ATFST: VSVD = enable (1)

- Ranges:
  - ASI/BNI
    - T3: 7-96000
    - E3: 7-80000
    - OC3: 7-353208
  - BXM
    - T3: 50-96000
    - E3: 50-80000
    - OC3: 50-353208
    - OC12: 50-1412832
- Default: 50

**MCR**

The MCR, Minimum Cell Rate, specifies the rate at which the source is always allowed to send.

The following configurations apply:

- Units: cells per second
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Range:
  - ASI/BNI
    - Tc: 0-96000
    - E3: 0-80000
    - OC3: 0-353208
  - BXM
    - T3: 6-96000
    - E3: 6-80000

- OC3: 6-353208
- OC12: 6-1412832
- Default: 50
- Applicable cards: BSM, ASI-T3/E3

**Other MCR**

The other end MCR, Minimum Cell Rate, specifies the rate at which the source is always allowed to send. The following configurations apply:

- Units: cells per second
- Applicable connection types: ABRSTD, ABRFST, ATFST
- Range:
  - ASI
    - T3: 0-96000
    - E3: 0-80000
    - OC3: 0-353208
  - BXM
    - T3: 6-96000
    - E3: 6-80000
    - OC3: 6-353208
    - OC12: 6-1412832
- Default: 50
- Applicable cards: BXM, ASI-T3/E3

**ATM Endpoint Table 2 Selection**

Click on this button to select the fields you want to display in the ATM Endpoint Table 2. See **Table Selections** on page 9 for more information about this feature.

## ATM Information - ATM Endpt Map

These tables show a mapping between ATM endpoints described by slot, port, vpi, vci and corresponding object identifier pointers into Connection Table and the service specific Endpoint Table. This table allows the user to determine the table indices associated with the connection defined by the physical attributes of slot, port, vpi, and vci.

To access this table, select **ATM Information** -> **ATM Endpt Map** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Slot**

This field contains the slot number associated with the requested connection endpoint.

**Port**

This field contains the port number associated with the requested connection endpoint.

**VPI**

This field contains the ATM endpoint VPI (Virtual Path Identifier) associated with the requested connection endpoint.

**VCI**

This field contains the ATM endpoint VCI (Virtual Channel Identifier) associated with the requested connection endpoint.

**Endpoint Pointer**

This field contains a pointer to first column of row in the service specific Endpoint Table which corresponds to the slot, port, vpi, and vci specified in the columns above.

**Connection Pointer**

This field contains a pointer to first column of row in Connection Table which corresponds to the slot, port, vpi, and vci specified in the columns above.

## ATM Information - ATM Endpt Stats

These three tables show the ATM connection endpoint statistics for received, transmitted, and discarded statistics.

To access these tables, select **ATM Information** -> **ATM Endpt Stats** from the **Icon Subviews**

menu for the **StComCommonApp**. The three tables, Received Statistics Table, Transmit Statistics Table, and Discard Statistics Table, will display the following information:

### **Received Statistics Table**

#### **Endpoint**

The index to the Received Statistics Table.

#### **Cells Port**

The number of cells delivered to the port from the line interface.

#### **Frames Port**

The number of frames delivered to the port from the line interface.

#### **CLP**

The number of cells delivered to the port from the line interface which had their CLP (Cell Loss Priority) bit set.

#### **Violate UPC**

The number of cells that violated UPC (Usage Parameter Control.)

#### **EFCI**

The number of cells received with EFCI (Explicit Forward Congestion Indication) set.

#### **Non-Compliant**

The number of non-compliant cells received.

### **VC Queue Avg**

The average queue depth of the VC (Virtual Circuit) queue.

#### **BCM**

The number of BCM cells received from the port. This object only applies to NNI (Network-to-Network) ports. For UNI ports returns "0."

#### **Cells Net**

The number of cells received from the network.

#### **AIS**

The number of received AIS (Alarm Indication Signal) cells.

#### **FERF**

The number of received FERF (Far-End Receive Failure) cells.

### **Transmit Statistics Table**

#### **Endpoint**

The index to the Transmit Statistics Table.

#### **Cells Net**

The number of received cells delivered to the network.

#### **BCM**

The number of BCM cells transmitted to the network.



**OAM**

The number of OAM (Operation, Administration, and Maintenance) cells transmitted to the network.

**CLP**

The number of cells transmitted to the port that had their CLP bit set.

**EFCI**

The number of cells transmitted by the port to the line interface that had EFCI (Explicit Forward Congestion Indication) set.

**Cells Ports**

The number of cells transmitted to the port interface.

**Discard Statistics Table****Endpoint**

The index to the Discard Statistics Table.

**CLP From VC**

The number of cells with CLP set that were discarded due to VC queue exceeding CLP thresholds.

**VC Queue Full**

The number of received cells that were discarded due to the VC queue being full.

**Connect Fail**

The number of received cells discarded due to the connection being in failed state.

**Resource Overflow**

The number of received cells discarded due to a resource overflow (e.g., cell buffer full.)

**Sbin Full**

The number of cells discarded on receipt from the port due to Sbin full.

**Qbin Full**

The number of cells discarded due to the egress Qbin being full.

**CLP From Qbin Full**

The number of cells with CLP set that are discarded due to the egress Qbin exceeding CLP (Cell Loss Priority) thresholds.

## Trunk Information - Frame Relay Trunk

The Frame Relay Routing Trunk Table shows trunk packet information, other end of the trunk information, and Bursty Data B information.

To access this table, select **Trunk Information** -> **Frame Relay Trunk** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

### Switch IF

An interface entry for the Frame Relay Trunk table.

### Status

The alarm state for the logical interface table row.

### Alarm Enable

A field to disable/enable a trunk alarm.

### Communic Status

The communication status of the protocol on this trunk.

### Tx Capacity

The Transmit Capacity on this trunk in packets per second.

### Tx Load

The Transmit Load on this trunk in packets per second.

### Rx Capacity

The Receive Capacity on this trunk in packets per second.

### Rx Load

The Receive Load on this trunk in packets per second.

### Other End Type

The type of node or shelf at the other end of this trunk.

### Other End Name

The name of the shelf at the other end of this trunk.

### Other End IP

The IP address of the shelf at the other end of this trunk.

### Other End IF

The index at the other end of this trunk.

### Other End Domain

The domain of the shelf at the other end of this trunk.

### Tx Rate

The trunk transmission rate in unit of packets per second.

**Pass Sync**

The selection of this trunk to pass synchronization to the network clock. The default value of this field is “no” (2.)

**Stat Reserve**

The statistical reserve in packets per second for this trunk. The default value for this field is “600 cps.”

**Loop Clock**

This field indicates if this trunk has been configured to loop receive clock back to transmit. The default value for this field is “no” (2.)

**B Data B Queue**

The depth of Bursty Data B transmission queue (in decimal) of this trunk.

**B Data B EFCN**

The transmission EFCN threshold (in decimal) for Bursty Data B traffic of this trunk.

**B Data B Hi CLP**

The transmission high CLP threshold (in percentage) for Bursty Data B traffic of this trunk. The default value for this field is “75%.”

**B Data B Low CLP**

The transmission low CLP threshold (in percentage) for Bursty Data B of this trunk. The default value for this field is “25%.”

**Link Type**

The physical link type of the trunk. The default value for this object is “terrestrial (1.)”

**Table Selection**

Click on this button to select the fields you want to display in the Frame Relay Routing Trunk Table. See **Table Selections** on page 9 for more information about this feature.

## Trunk Information - ATM Trunk

The ATM Trunk Tables show ATM Trunk packet information, other end of the trunk information, Switched Virtual Circuit information, and Bursty Data B information.

To access these tables, select **Trunk Information** -> **ATM Trunk** from the **Icon Subviews** menu for the **StComCommonApp**. These tables, ATM Trunk Table 1 and ATM Trunk Table 2, will display the following information:

**ATM Trunk Table 1****Switch IF**

An interface entry for the ATM Trunk table.

**Alarm State**

The alarms state for the logical interface table row.

**Alarm Enable**

A field to disable/enable a trunk alarm.

**Communic Status**

The communication status of the protocol on this trunk.

**Rx Rate**

The trunk receive rate in units of 1000 packets per second.

**Tx Capacity**

The transmit capacity on this trunk in cells per second.

**Tx Load**

The transmit load on this trunk in cells per second.

**Rx Capacity**

The receive capacity on this trunk in cells per second.

**Rx Load**

The receive load on this trunk in cells per second.

**Trunk Type**

The type of trunk. The values of trunk type CBR(2), trunk type VBR(3), and trunk type ABR(4) are writable for virtual trunks only. The trunk type PHY(1) value is returned for a get-request on a physical trunk.

**VPI**

The VPI (Virtual Path Identifier) used on this virtual trunk. The maximum value is “255” for DS3 trunks, and “63” for OC3 trunks. The minimum value for set-request PDUs is “1.” This value must be unique on a physical trunk port and also must match the value for the path through the ATM cloud.

**Channels Reserv**

The number of channels reserved for this trunk.

**Traffic Class**

The traffic classes of this trunk. [Table 11](#) lists the bit number and classes description.

**Table 11: Traffic Classes**

Bit Number	Class Description
bit 0	Voice
bit 1	Time Stamped
bit 2	Non-Time Stamped
bit 3	Frame Relay

**Table 11: Traffic Classes (Continued)**

bit 4	not used
bit 5	ForeSight
bit 6	ATM CBR
bit 7	ATM VBR
bit 8	ATM ABR

**End Type**

The type of node or shelf at the other end of this trunk.

**End Name**

The name of the shelf at the other end of this trunk.

**End IP Addr**

The IP address of the shelf at the other end of this trunk.

**End IF**

The switch interface index at the other end of this trunk.

**End Domain**

The domain of the shelf at the other end of this trunk.

**LCN Rx for SVC**

The number of LCNs (Logical Channel Number) reserved for the SVCs (Switched Virtual Circuit) on this trunk. The other SVC parameters are valid if this field has a non-zero value.

**Share LCN**

Whether the LCNs (Logical Channel Number) are shared per port basis or per card basis.

**Table 1 Selection**

Click on this button to select the fields you want to display in the ATM Trunk Table 1. See **Table Selections** on page 9 for more information about this feature.

**ATM Trunk Table 2****Switch IF**

An interface entry for the ATM Trunk table.

**SVC LCN Low**

The lower limit of the LCN (Logical Channel Number) value which can be used on this trunk.

**SVC LCN High**

The upper limit of the LCN (Logical Channel Number) value which can be used on this trunk for SVCs (Switched Virtual Circuits.)

**SVC VPI Low**

The SVC VPI lower limit. The partitioning is based on the STI Header VC-format. The 16-bit concatenated VPI/VCI field is partitioned between PVC and SVC. On a physical trunk a range will be reserved for SVCs.

**SVC VPI High**

The SVC VPI upper limit. The partitioning is based on the STI Header VC-format. The 16-bit concatenated VPI/VCI field is partitioned between PVC and SVC. On a physical trunk a range will be reserved for SVCs.

**SVC VCI Low**

The SVC VCI lower limit.

**SVC VCI High**

The SVC VCI upper limit.

**SVC Queue Map**

A 32-bit octet string which represents the queue bin allocation. If the bit is set to "1," it is allocated to SVCs and if "0" it is allocated to PVCs.

**SVC Egress Queue**

The egress queue pool size.

**SVC BW**

The bandwidth partition available for SVCs.

**SVC In Use**

This field is set by the INS to indicate that SVC partitioning information is being used by INS. The initial value is "notInUse." This field is valid if ATM Port Service Channels is non-zero.

**Tx Rate**

The trunk transmission rate in unit of cells per second.

**Pass Synchroniz**

The selection of this trunk to pass synchronization to the network clock. The default value for this object is "yes " (1.)

**Stat Reserve**

The Statistical Reserve in cells per second for this trunk.

**Loop Clock**

This field indicates if this trunk has been configured to loop receive clock back to transmit. The default value for this field is "no" (2.)

**BDataB Tx Queue**

The depth of Bursty Data B transmission queue (in decimal.) The default value for this field is "8000."

**BDataB Rx Queue**

The depth of Bursty Data B receiving queue (in decimal.) The default value for this field is "8000."

**BDataB Tx EFCN**

The transmission EFCN threshold (in decimal) for Bursty Data B of this trunk. The default value for this field is “8000.”

**BDataB Rx EFCN**

The receiving EFCN threshold (in decimal) for Bursty Data B of this trunk. The default value for this field is “8000.”

**BDataB Tx CLP High**

The transmission high CLP threshold (in percentage) for Bursty Data B of this trunk. The default value for this field is “75.”

**BDataB Rx CLP High**

The receiving high CLP threshold (in percentage) for Bursty Data B of this trunk. This field is not applicable (-1) to BPX ATM trunk (BNI or BXM.) The default value for this field is “75.”

**BDataB Tx CLP Low**

The transmission low CLP threshold (in percentage) for Bursty Data B of this trunk. This field is not applicable (-1) to IPX or IGX ATM trunks. The default value for this field is “25.”

**BDataB Rx CLP Low**

The receiving low CLP threshold (in percentage) for Bursty Data B of this trunk. This field is not applicable (-1) to BPX ATM trunk (BNI or BXM.) The default value for this object is “25.”

**Max Port on Channel**

The maximum number of channels a BXM trunk port can support. This field is applicable to BXM trunk only. The default value for this field is “1484.”

**Link Type**

The physical link type of the trunk. The default value for this field is “terrestrial (1).”

**Deroute Delay Timer**

The deroute delay timer of the trunk in unit of second. The default value for this object is “0.”

**Table 2 Selection**

Click on this button to select the fields you want to display in the ATM Trunk Table 2. See **Table Selections** on page 9 for more information about this feature.

## Trunk Information - Frame Relay Trunk Stat

The Frame Relay Trunk Packet Statistics Table shows transmit packet statistics.

To access this table, select **Trunk Information** -> **Frame Relay Trunk Stat** from the **Icon Subviews** menu for the **StComCommonApp**. This table will display the following information:

**Switch IF**

An interface entry on the Frame Relay Trunk Statistics table.

**CRC**

The number of Fast Packet CRC errors.

**Out of Frame**

The number of Fast Packet Out of Frame errors.

**Tx Voice Drop**

The number of transmitted voice fast packets dropped.

**Tx Time-Stamp Drop**

The number of transmitted time-stamped packets dropped.

**Tx Non T-S Drop**

The number of transmitted non time-stamped packets dropped.

**Tx High Prio Drop**

The number of transmitted high priority packets dropped.

**Tx BDataA Drop**

The number of transmitted Bursty Data A packets dropped.

**Tx BDataB Drop**

The number of transmitted Bursty Data B packets dropped.

**Tx to Line**

The number of total packets transmitted to the line.

## Trunk Information - ATM Trunk Stat

The ATM Trunk Statistics Table shows packet and cell statistics in the ATM Trunk Statistics Packet Table and the ATM Trunk Statistics Cell Table.

To access these tables, select **Trunk Information** -> **ATM Trunk Stat** from the **Icon Subviews** menu for the **StComCommonApp**. These tables, ATM Trunk Statistics Packet Table and ATM Trunk Statistics Cell Table, will display the following information:

### ATM Trunk Statistics Packet Table

**Switch IF**

The interface for the ATM Trunk Statistics Packet Table.

**Tx Voice Drop**

The number of transmitted voice fast packets dropped.



**Tx T-S Drop**

The number of transmitted time-stamped packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Tx Non T-S Drop**

The number of transmitted non time-stamped packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Tx High Prio Drop**

The number of transmitted high priority packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Tx BDataA Drop**

The number of transmitted bursty data A packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Tx BDataB Drop**

The number of transmitted bursty data B packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx Voice Drop**

The number of received voice packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx T-S Drop**

The number of received tim-stamped packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx Non T-S Drop**

The number of received non time-stamped packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx High Prio Drop**

The number of received high priority packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx BDataA Drop**

The number of received bursty data A packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx BDataB Drop**

The number of received bursty data B packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx Spacer Drop**

The number of received Spacer Packets dropped. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Tx To Line**

The number of total packets transmitted to the line. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**Rx From Line**

The number of total packets received from the line. This statistic is not applicable to BPX trunks, “0” is returned for BPX trunks.

**ATM Trunk Statistics Cell Table****Switch IF**

The interface for the ATM Trunk Statistics Cell Table.

**Tx Voice Drop**

The number of transmitted ATM voice cells dropped. This statistic is not applicable to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx T-S Drop**

The number of transmitted time-stamped ATM cells dropped. This statistic is not applicable to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx Non T-S Drop**

The number of transmitted non time-stamped ATM cells dropped. This statistic is not applicable

to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx High Prio Drop**

The number of transmitted high priority ATM cells dropped. This statistic is not applicable to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx BDataA Drop**

The number of transmitted Bursty Data A cells dropped. This statistic is not applicable to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx BDataB Drop**

The number of transmitted Bursty Data B cells dropped. This statistic is not applicable to ATM Virtual trunks, “0” is returned for ATM Virtual trunks.

**Tx CBR Drop**

The number of ATM CBR cells dropped. This statistic is not applicable to IPX/IGX ATM trunks, “0” is returned for IPX/IGX ATM trunks.

**Tx VBR Drop**

The number of transmitted ATM VBR cells dropped. This statistic is not applicable to IPX/IGX ATM trunks, “0” is returned for IPX/IGX ATM trunks.

**Tx ABR Drop**

The number of transmitted ATM ABR cells dropped. This statistic is not applicable to IPX/IGX ATM trunks, “0” is returned for IPX/IGX ATM trunks.

**Tx To Line**

The number of total cells transmitted to the line.

**Rx From Port**

The number of total cells received from the port.

# Device Configuration View

This section provides you with an overview of the Device Configuration view.

The Device Configuration view allows you to access network configuration and monitoring information, as well as traffic flow and error data.

Located below the banner you will find the Interface Configuration Table which provides port configuration information for each of the device's ports. Double-clicking on any column entry for a particular port accesses an Interface Configuration - Information view. [Figure 8](#) shows an example of the Device Configuration View for the Cisco StrataCom. For more general information regarding the Device Configuration view, see **SPECTRUM Views**.

**Figure 8: StrataCom Device Configuration View**

The screenshot displays the 'StrataCom of type StrataCom of Landscape tulip: Primary' window. The interface includes a menu bar with 'File', 'View', 'Options', and 'Help ?'. The main area is titled 'Device Configuration View' and contains several input fields for device information: Model Name, Network Address, System Up Time, Contact, Manufacturer, Description, Device Type, Location, Primary Application, Serial Number, Primary Address, and Preferred Addresses. Below these fields are buttons for 'Router Redundancy', 'IF Address Translation', and 'Reconfigure'. At the bottom, there is an 'Interface Configuration Table' with columns for Index, Description, Type, Bandwidth, Physical Address, and Operation Status. The table is currently empty.

# Model Information View

This section provides you with an overview of the Model Information View.

Model Information views provide descriptive and configuration information about SPECTRUM models of individual devices, interfaces, and applications. [Figure 9](#) shows an example of the Model Information view accessed from the Icon Subviews menu for the StrataCom model's Device icon. Model Information views are also available for each of the Interface icons in the Interface Device and Interface Device Topology views, and for each of the Application icons in the Application views. Although these views may vary slightly depending on the particular entity being modeled, their basic layout and content are similar for most SPECTRUM management modules. Therefore these views are described in more detail in the ***SPECTRUM Views*** documentation.

**Figure 9: StrataCom Model Information View**

StrataCom of type StrataCom of Landscape tulip: Primary

\* File View Options Help ?

### Cisco StrataCom Model Information View

Name	Network Address	System Up Time
Contact		Manufacturer
Description		Device Type
Location	Primary Application	Serial Number

#### General Information

MM Name	
MM Part Number	
MM Version Number	
Model Type	
Model Creation Time	
Model Created By	
Model State	
Security String	
Condition	
Condition Value	
Contact Status	
Lost Child Count	
Value When Yellow	
Value When Orange	
Value When Red	

#### Communication Information

DCM TimeOut	
DCM Retry	
Community Name	
Mgmt Protocol	

#### Poll/Log Information

Poll Interval	
Polling Status	<input type="checkbox"/>
Last Successful Poll	
Log Ratio	

LOGGED POLLED

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